

SPONSORED RESEARCH, INDUSTRIAL CONSULTANCY AND CONSULTANCY EDUCATION CELL NATIONAL INSTITUTE OF TECHNOLOGY, ROURKELA – 769008 ODISHA

# **Limited Tender Enquiry**

#### Department: Life Science

#### Tender Notice No: NITR/PW/LS/2018/48

Date: 30/08/2018

- 1. Eppendorf India Limited, 1C & 2C Kaberi Abasan, 9, Selimpur Road, Kolkata – 700031
- 2. K.R. Instruments & Chemicals, 'AASHRAY', Flat - B1, 69C, Selimpur Road, Kolkata – 700031

#### KD Chemical & Scientific Works, 715/11 (46A), Mahatma Gandhi Road, 2nd floor (Back Side), Thakurpukur, Senpara, Kolkata – 700063

- 4. M/s Techromed Corporation, Plot No: 8/591, Raghunathpur, Bhubaneswar-754005, Odisha.
- 5. M/s Niranjani Enterprises, C-402, Baisnav Vihar, Bomikhal, Bhubneshwar-751010, Odisha
- Maverick Technologies, 1<sup>st</sup> Floor, Silver Square Mall, Above Westside Christian Basti, G.S. Road, Guwahati-781005.

# Through CPP Portal (E-procurement)

Dear Sir,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send your offer with prices and complete terms within the time mentioned above.

For any clarification:

Attention: - Prof. R. Dhiman Department of Life Science NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA Phone: - 0661- 2462780 Mobile no- +91 8594828323 Email: <u>dhimanr@nitrkl.ac.in</u>

Encl:

1. Schedule of requirement, specifications, dates etc.

2. Bid document containing detail terms and conditions.

<b>Important Dates</b>		
	Date	

Event	Date	Time
Pre-bid Conference	NA	NA
Last Date of submission of bid	24/09/2018	11:00 AM
Date of Opening of Technical and Financial Bid	25/09/2018	11:00 AM

Yours sincerely,

Name: Prof. R. Dhiman Professor-In Charge: Laboratory of mycobacterial immunology

#### 1. Schedule of requirements

<b>JV-Vis Spectrometer</b>		
Compact UV – VIS spectromete	er to quantify undiluted nucleic acids at microliter volume ( $<1.5 \mu$ L) and other	
biomolecule analysis using stan	dard volumes.	
Optical system	Absorption single-beam photometer with reference beam	
Light Source	Xenon flash lamp	
Sample capacity	1.5ul to 2ml	
Receiver	CMOS photodiode array	
Wavelength range	200 nm to 830 nm	
Wavelength Selection	Method-dependent, freely selectable	
Spectral bandwidth	≤4 nm	
Wavelength increment	1 nm	
Systematic wavelength error	±1 nm	
Random wavelength error	≤0.5 nm	
Photometric measuring range	0.0 to 3.0 A at 260 nm	
Photometric reading accuracy	$\Delta A = 0.001$	
Random photometric error	$\leq 0.002$ at A = 0, $\leq 0.005 (0.5\%)$ at A = 1	
Systematic photometric error	$\pm 1$ % at A = 1	
Cuvette comaptibility	Microliter cuvette for low volume measurements.	
	UV-Vis plastic disposable/standard Quartz Cuvettes	
Micro cuvette type	Coating: Hydrophobic surface coating	
<b>V</b> I	• Cuvette blank: <0.1A@230nm. <0.05A@260nm	
	• Minimum vol: 1.5uL dsDNA. 3 uL Protein	
	• Wavelength range: 180nm- 2000nm	
	Material: Quartz	
	• Light nath height: 8.5mm	
UV-Vis plastic disposable	• Light path length: 2mm & 10mm	
Cuvette type	• Light path height: 8 5cm	
Curene type	• Volume: 50-2000ul	
	Wavelength range: 220-1600nm	
Methods	Absorbance with one or more wavelengths, scans	
Wethous	<ul> <li>Absorbance with one of more wavelengins, scans</li> <li>Nucloic acide Proteins, OD 600, dva labeling</li> </ul>	
	<ul> <li>Nucleic actus, Flotenis, OD 000, dye labeling</li> <li>Evaluation via factor, standard and calibration curva</li> </ul>	
	<ul> <li>Evaluation via factor, standard and canoration curve</li> <li>Dual wavelength with subtraction and division evaluation</li> </ul>	
Mathod dependent avaluation	Dual wavelength with subtraction and division evaluation	
Method dependent evaluation	• Absorbance, concentration via factor and standard	
	• Linear regression, Nonlinear regression with 2 and 5 degree polynoms	
	• Linear interpolation (point to point evaluation)	
	Absorbance allocation via subtraction and division	
	• Ratio $200/280$ , $200/250$ , molar concentration and total yield for nucleic acids	
	Frequency of incorporation of Cy3, Cy5 dyes and labeling density	
Display	5./ VGA IFI display	
Interfaces	USB master for USB stick; USB slave for connection to PC; Serial RS-232 for	
	thermal printer	
wemory	> 100 method programs on the instrument	
	> 1000 results with data, evaluation results and used parameters	
	$100 \text{ to } 240 \text{ V} \pm 10\% \text{ / } 50 \text{ to } 00 \text{ HZ} \pm 5\%$	
rower consumption	Approx. 15 w in the operating step	

#### 2. Specifications and allied Technical Details: As per Annexure-I

#### 3. **Format of Quotation** (tick appropriate box)

 $\checkmark$  It is a one cover bid; please give all technical specifications and price bid in one envelope.

OR

It is a two-part bid with separate techno-commercial and price bids.

4. The Bid should be submitted through e-procurement: <u>https://eprocure.gov.in/eprocure/app</u>

5. Quotations should be valid for a period of **90 days** from the closing date of the bid.

#### 6. Some important dates:

i.	Pre- bid Conference:	Date: NA	Date: NA
ii.	Last date for submission of bid:	Date: 24/09/2018	Time: 11:00 AM
iii.	Opening of technical and financial bid:	Date: 25/09/2018	Time: <b>11:00 AM</b>

- 7. **Warranty** of **03** years must be provided.
- **8. GST:** GST should be charge according to applicable rates (if applicable).

#### 9. Bid Security: Not Applicable

#### 10. Performance Security: Not Applicable

- 11. Tender Cost: Tender Cost (Non- refundable) in the shape of Demand Draft for INR 500/- (Rupees Five hundred only) in favor of Director, NIT Rourkela Payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin bank. Tender Cost should reach physically through speed post/ register post/courier, containing in an envelope & superscripted with subject, tender reference number addressing to Registrar, NIT Rourkela- 769008, Odisha; Attention: HOD(LS) on or before 25/09/2018 at 11:00 AM.
- 12. Please go through the enclosed "bid document" carefully for other bidding instruction
- 13. Please send your quotations through https://eprocure.gov.in/eprocure/app
- 14. For Technical Details you may contact to

Prof. R. Dhiman Department of Life Science National Institute of Technology, Rourkela – 769 008 Phone:- 0661- 2462780, Mobile no- +91 8594828323 Email: <u>dhimanr@nitrkl.ac.in</u>

NB: Please furnish your Dealership Certificate (must) and Proprietary Nature Certificate (If applicable).



### **BID DOCUMENT**

#### 1. Instructions to the bidders:

- 1.1 Bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela 769008, Orissa, from the intending bidders for supply of the goods/stores/ equipments for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote their offer/rates in BOQ in clear terms without ambiguity.
- 1.3 In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
- 1.4 The last date for receipt of the bid is marked in the enquiry.
- 1.5 The bids should be uploaded in <u>https://eprocure.gov.in/eprocure/app</u> Please follow the guidelines of the site.
- 1.6 If a prospective bidder requires any clarification in regard to the bidding documents, he may make a request the concerned officer or faculty member at least 7 days before the deadline for receipt of bids.
- 1.7 Bids received after the deadline of receipt indicated in para 1.4 above, shall not be taken in to consideration.
- 1.8 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered non-responsive.
- 1.9 The bids may be submitted in one part, viz., techno-commercial bid.
- 1.10 The bidder has to sign in full at all pages of the scanned part of the bidding document. No overwriting in those pages is acceptable.

#### 2. Terms and Conditions of the bid:

- 2.1 The rates quoted should preferably be net, inclusive of packing, forwarding, freight, Insurance and all other incidental charges excluding taxes. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or Ad Valorem rate must be specified. Packing, forwarding, freight etc., when quotes separately are reimbursable at actual. If external agencies are employed, their receipts must be enclosed with the invoice.
- 2.2 Duties and Taxes are to be quoted separately. Ad Valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules.

# It may be noted that the Institute is exempt from paying Excise Duty vide Government Notification No. 10/97 dated 01.03.1997 [Registration No.: TU/V/RG-CD (227)/2011, dated 10.10.2011]. GST may be charged at applicable rates.

- 2.3 The goods are required to be delivered at the indenting Department of NIT, Rourkela, and must be dispatched within **60 days** from the date of placement of the supply of order under the risk and arrangement of the bidder and offers with delivery beyond the above period shall be treated as unresponsive. In case the delivery time is higher, the same must be mentioned clearly in the quotation.
- 2.4 The bid should remain valid for a period of **90 days** from the date of opening. In case your offer has a different validity period that should be clearly mentioned in the quotation.

- 2.5 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.6 The goods offered should strictly conform to the specification and technical details mentioned in Annexure I.
- 2.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.8 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 2.9 If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the Director, NIT, Rourkela to recover liquidated damage from the firm at the rate of 1 percent of the value of undelivered goods per month or part thereof, subject to a maximum of 5 percent of the value of undelivered goods. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.
- 2.10 The successful bidder may be required to execute a contract, where applicable.
- 2.11 The bidder has to furnish up to date GST and Income Tax Clearance Certificate along with the bid.
- 2.12 Payment (100 percent) will be made by Account Payee Cheque /Bank Draft, within 30 days from the date of receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, and after successful installation and demonstration where ever applicable, whichever is later/latest.
- 2.13 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT Rourkela shall be final.
- 2.14 The bid document/resultant contract will be interpreted under Indian Laws.

# **Technical Specification for UV-Vis Spectrometer**

# A. UV-Vis Spectrometer

Compact UV – VIS spectrometer to quantify undiluted nucleic acids at microliter volume (<1.5 µL) and other			
biomolecule analysis using standard volumes.			
Optical system	Absorption single-beam photometer with reference beam		
Light Source	Xenon flash lamp		
Sample capacity	1.5ul to 2ml		
Receiver	CMOS photodiode array		
Wavelength range	200 nm to 830 nm		
Wavelength Selection	Method-dependent, freely selectable		
Spectral bandwidth	≤4 nm		
Wavelength increment	1 nm		
Systematic wavelength error	±1 nm		
Random wavelength error	≤0.5 nm		
Photometric measuring range	0.0 to 3.0 A at 260 nm		
Photometric reading accuracy	$\Delta A = 0.001$		
Random photometric error	$\leq 0.002$ at A = 0, $\leq 0.005$ (0.5%) at A = 1		
Systematic photometric error	±1 % at A = 1		
Cuvette comaptibility	Microliter cuvette for low volume measurements.		
	• UV-Vis plastic disposable/standard Quartz Cuvettes		
Micro cuvette type	Coating: Hydrophobic surface coating		
	• Cuvette blank: <0.1A@230nm. <0.05A@260nm		
	• Minimum vol: 1 5uL dsDNA_3 uL Protein		
	• Wavelength range: 180nm 2000nm		
	• Wavelength lange. 100mm-2000mm		
	• Material: Quartz		
	• Light path height: 8.5mm		
UV-Vis plastic disposable	• Light path length: 2mm & 10mm		
Cuvette type	• Light path height: 8.5cm		
	• Volume: 50-2000ul		
	Wavelength range: 220-1600nm		
Methods	• Absorbance with one or more wavelengths, scans		
	<ul> <li>Nucleic acids, Proteins, OD 600, dye labeling</li> </ul>		
	<ul> <li>Evaluation via factor, standard and calibration curve</li> </ul>		
	Dual wavelength with subtraction and division evaluation		
Method dependent evaluation	Absorbance, concentration via factor and standard		
	• Linear regression. Nonlinear regression with $2^{nd}$ and $3^{rd}$ degree polynoms		
	• Linear interpolation (point to point evaluation)		
	Absorbance allocation via subtraction and division		
	<ul> <li>Autoritation via subtraction and division</li> <li>Datio 260/280, 260/220, malar concentration and total yield for nucleic soids.</li> </ul>		
	<ul> <li>Ratio 200/280, 200/280, initial concentration and total yield for indefect acids</li> <li>Encourage of incomparation of Cv2. Cv5 dyac and labeling density.</li> </ul>		
Diaglas	• Frequency of incorporation of Cy5, Cy5 dyes and labeling density		
Display	5.7 VGA IFI display		
Interfaces	USB master for USB stick; USB stave for connection to PC; Serial KS-232 for		
Manage	inerniai printer		
Memory	> 100 method programs on the instrument		
	> 1000 results with data, evaluation results and used parameters		
Power supply	100 to 240 V $\pm$ 10% / 50 to 60 Hz $\pm$ 5 %		
Power consumption	Approx. 15 W in the operating step		
	Approx. 5 W with dimmed display		

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