NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA-769008 (ODISHA)

An Institute of National Importance under Ministry of HRD, GOI

NOTICE INVITING TENDER

Tender Notification No: NITR/PW/LS/2018/48 **Dated: 30/08/2018**

The National Institute of Technology, Rourkela invites bids from the eligible bidders for procurement of **UV-Vis Spectrometer** at NIT Rourkela.

Last date of Submission of Bid : 24/09/2018 at 11:00 AM

Date of opening of technical and financial Bid : 25/09/2018 at 11:00 AM

For Details: http://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx

Contact: Prof. R. Dhiman, (LS dept.); Ph: 0661-2462780;

Email: dhimanr@nitrkl.ac.in

Bidding through: https://eprocure.gov.in/eprocure/app

sd/-
REGISTRAR

NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA-769008, ODISHA

(TENDER NOTICE NO: NITR/PW/LS/2018/48 dated 30/08/2018)

Purchase of UV-Vis Spectrometer

Sl. No.	Description of Goods/Service	Quantity
01.	UV-Vis Spectrometer (As per the specification mentioned in **Annexure I**)	01

1. Quantity required : As mentioned above (All information provided in technical specification)
2. Delivery Period : Within **60 days** from the date of purchase order
3. Last Date of submission of bid : **24/09/2018 at 11:00 AM**
4. Date of opening of Technical and Financial bid : **25/09/2018 at 11:00 AM**
5. The firm should not have been black listed at any time.
6. The submission of following bids by the tenderer should be through https://eprocure.gov.in/eprocure/app Please follow the guidelines as per the portal.

Purchase of UV-Vis Spectrometer
(Tender Notice No: NITR/PW/LS/2018/48 dated: 30/08/2018) Due on 24/09/2018 at 11:00 AM

7. Liquidated damage clause will be charged for any delay in supply of goods.
8. The validity of the tender shall be **90 days** from the date of opening of the bids.
9. Detailed advertisement including all tender documents is also available in our website at http://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx
10. NIT reserves the right to qualify or deny prequalification of any or all applicants without assigning any reasons.

(REGISTRAR)
NIT, Rourkela
Fax No- 0661-2462022
Ph. No -0661-2472021

Annexure –I

Specification for UV-Vis Spectrometer

Technical Specification

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	ΔA = 0.001
Random photometric error	≤ 0.002 at A = 0, ≤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: 1.5µL dsDNA, 3 µL Protein • Wavelength range: 180nm- 2000nm • Material: Quartz • Light path height: 8.5mm
UV-Vis plastic disposable Cuvette type	• Light path length: 2mm & 10mm • Light path height: 8.5cm • Volume: 50-2000ul • Wavelength range: 220-1600nm
Methods	• Absorbance with one or more wavelengths, scans • Nucleic acids, Proteins, OD 600, dye labeling • Evaluation via factor, standard and calibration curve • Dual wavelength with subtraction and division evaluation
Method dependent evaluation	• Absorbance, concentration via factor and standard • Linear regression, Nonlinear regression with 2nd and 3rd degree polynoms • Linear interpolation (point to point evaluation) • Absorbance allocation via subtraction and division • Ratio 260/280, 260/230, molar concentration and total yield for nucleic acids • Frequency of incorporation of Cy3, Cy5 dyes and labeling density
Display	5.7” VGA TFT display
Interfaces	USB master for USB stick; USB slave for connection to PC; Serial RS-232 for thermal printer
Memory	> 100 method programs on the instrument > 1000 results with data, evaluation results and used parameters
Power supply	100 to 240 V ± 10% / 50 to 60 Hz ± 5 %
Power consumption	Approx. 15 W in the operating step Approx. 5 W with dimmed display

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