



# Ramakrishna Mission Residential College (Autonomous) Vivekananda Centre for Research

Ramakrishna Mission Ashrama

(A Branch Centre of Ramakrishna Mission, Belur Math, Howrah-711202)

**Narendrapur, Kolkata – 700103, West Bengal, India**

A Scientific Industrial Research Organisation by DST, Govt. of India

College with Potential for Excellence (CPE), RE-accredited by NAAC – 'A' (CGPA 3.56 out of 4)

Notice No. VP/Tender/2021/004

Date: 09 April 2021

Quotations are invited from eligible firms as per the following details:

1. Name of the Department seeking quotations: **Physics**

2. Quotations should be sent to:

**Principal,**

**Ramakrishna Mission Residential College, Narendrapur. 700 103**

**E-mail: [rkmcpur@gmail.com](mailto:rkmcpur@gmail.com)**

(Note: Soft copies of the quotations can be emailed to the above address, but hard copies of the quotation should be brought if your firm gets selected for the delivery of goods)

3. Contact person: Dr Amal Sarkar

- Email : [amal.iitb@gmail.com](mailto:amal.iitb@gmail.com)
- Cell Phone : +91 9821864970

## **Sub: RFQ For High Energy Physics Laboratory**

Requesting potential vendors for a quotation for the following instruments, one piece each (unless specified otherwise) with the given specification **before 23 April 2021.**

1. **UV Writing System- Laser based,  
Specifications**

Laser: GaN laser diode (preferred)

Wavelength: 405nm

Spatial filtering unit: Objective lens based



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Spot size – 0.5-5 microns

Focus controls= Software controllable

XY Scanning stage travel = 300mm x 300mm XY drive = Servomotor

Straight line accuracy = 10 microns

XY Resolution = 1 micron

Z axis travel = 20mm

Z axis drive =Stepper motor with linear encoder Z axis resolution = 1 micron

Alignment camera

Sensor= 5MP 1/2.5 " CMOS sensor

Active pixels = 2592H x 1944V

Pixel size = 2.2um x 2.2um

### **Software:**

Image analyser = Image grabbing, line thickness measurement. Mach

3 = CNC software for making different patterns

Make: Holmarc (preferred)

**Additional accessory:** 60x Microscope Objective

## 2. ILD2300-2 Laseroptical displacement measuring system

### **Specifications**

Intelligent laser displacement sensor with integrated controller

Protection class IP65

Measuring range: 0.1um – 300mm

Start of measuring range (SMR): 24mm

Laser class 2

Sensor cable (integrated) 0.25m Measuring mode: diffuse / direct reflection

Measuring frequency (adjustable): 49kHz, 30kHz; 20kHz, 10kHz,

2.5kHz and 1.5kHz Signal output (switchable): Digital (RS422,

Ethernet and EtherCAT)

Power supply: 11 ... 30VDC; < 3 W

Configuration and data acquisition via web browser

XY Scanning stage travel = 300mm x 300mm XY drive = Servomotor (or higher)



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Straight line accuracy  $\leq 0.5$  microns

XY Resolution  $< 0.5$  micron

### Additional accessory:

1. PC2300-3/SUB-D Power and output cable, length 3 m  
For sensor type ILD2300-xxx  
with 14-pin circular connector and 15-pin HD connector, for supply of 24 VDC (11 – 30 VDC) and output of signals: Ethernet, EtherCAT, RS422, Synchronization, laser protection shutdown, limit switch, PC2300-x/SUB-D are drag-chain suitable
2. PC2300-0.5Y Connecting Cable ILD2300  
Cable for power supply and connection of ILD2300 to a PC or SPS.
3. Lenovo V520 Slim Tower(10NNA01UIG)  
**Specifications**  
Intel i5 10<sup>th</sup> generation (or higher)  
8 GB RAM, 1TB HD, Windows 10 ( $\geq 2019$ )  
Monitor 27”  
Quantity: 2
4. Gas Electron Multiplier Detector  
**Specifications**  
10 cm X 10 cm  
140-70/50  
Double Mask  
Quantity: 2  
**Make:** CERN, Switzerland
5. Gas Electron Multiplier Detector  
**Specifications**  
10 cm X 10 cm  
Double Mask  
Quantity: 2  
**Make:** Micropak, India



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6. GM Counter

**Specifications**

Wide end window GM detector

**Make: Nucleonix**

7. Picoameter

**Specifications**

DPM-111, Digital Picoameter

**Make: SES Instruments**

8. Digital Oscilloscope

**Specifications**

DSO-20MHz, OWN

**Make: OWN**

9. Microscope

**Specifications**

BINOCULAR MICROSCOPE

**Make: RADICAL**

10. High Voltage Power Supply 10k

**Specifications**

AI 10W, 0-10kV

**Make: Ambey International**

11. Barometer

**Specifications**

Hand Held

**Make: HTC**

12. Gas Flow meter

**Specifications**

GET-100AP-RS485- 1L-U



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**Make: Manas**

## 13. Beta (Iron) Radioactive Source

LMW-C14-1 155 RS ( )

Need certificate for special permission

**We have DSIR certificate and GST number, so please add 5% GST**

Note:

1. The Principal reserves the right to reject any quotation if it fails to fulfil general norms.
2. The Principal reserves the right to cancel any notification inviting Quotations for Procurement of the Equipment under unavoidable circumstances.
3. The decisions of the Purchase Committee and the Principal will be the final
4. The college follows the Accounting and Procurement Policy of Ramakrishna Mission as the college is under the aegis of this organisation.

Principal