SCHOOL OF PHYSICS, SAMBALPUR UNIVERSITY
JYOTI VIHAR-768019, SAMBALPUR, ODISHA

No. 232/SU/PHY Date: 10-12-2025

QUOTATION CALL NOTICE

Sealed quotations are invited from intending manufacturers/ dealers/suppliers/firms with valid GST certificates for supplying various equipments/instruments to be purchased for **School of Physics, Sambalpur University** on or before 03.01.2026 up to 4.00 PM. The details of the requirement can be obtained from the undersigned or may visit Sambalpur University website (www.suniv.ac.in). The authority reserves the right to cancel the quotation without assigning any reason thereof.

Sd/-
Registrar, Samblpur University

Memo No.232(A)/SU/PHY Date: 10-12-2025

Copy to:

1. Deputy Director, Advertisement, Information and Public Relation Department, Govt. of Odisha, Bhubaneswar with a request to publish the advertisement in following Odia/English dailies with minimum size as prescribed by I&PR Department, Govt. of Odisha on or before 15.12.2025.
   A) The Samaj (All Odisha Edition)
   B) The Times of India (All India Edition)
   He/She is further requested to submit the bills in triplicates to the Registrar, Sambalpur University addressed to the HOD, School of Physics, SU along with the copy of the Advertisement for payment by the School of Physics.

2. Director, E-Governance, Sambalpur University to upload to the University website.

Registrar 10/12/2025

INFORMATION BOOKLET

ON

QUOTATION CALL NOTICE

INSTRUMENTS FOR SCHOOL OF PHYSICS, SAMBALPUR UNIVERSITY

(Ref: 232 – 232(13)/SU/PHY, Dated: 10.12.2025)

SAMBALPUR UNIVERSITY

JYOTI VIHAR, BURLA-768 019, ODISHA

Registrar
Sambalpur University
Jyotivihar, Burla

Ref. No. 232/SU/PHY

Dated:10.12.2025

QUOTATION CALL NOTICE

Sealed quotations in duplicate are invited from the interested Manufacturers/Authorized dealers/Registered firms to supply the following Laboratory equipments for School of Physics, Sambalpur University, **on 'FOR' destination basis**. The last date of submission of quotation is 03.01.2026. Valid copy of PAN/GST No. and a bank draft of 2.0% of the quoted price as EMD, drawn **in favour of Comptroller of Finance, SU** of any bank **payable at State Bank of India, Jyoti Vihar Branch, Burla, code No.06672.** The EMD should be enclosed along with the quotation; otherwise, the quotations will be rejected. The Registrar reserves all right to reject any or all quotations without assigning any reason thereof.

Terms & conditions:

1. The quotation shall be submitted with separate technical specifications and financial bid in a sealed cover. On the top of the envelope please mention **'School of Physics, Ref. No.- instrument name'**, for which quotation is being submitted in bold. Separate quotation have to be submitted for each Ref. No. /instrument.
2. The sealed quotations in the name of the **'Registrar, Sambalpur University, Jyoti Vihar, Burla, Odisha 768019'** will be received up to 4.00 P.M. on all working days up to **03.01.2026** by **speed post/registered post** only. The quotations may be sent to **Head, School of Physics, Sambalpur University, Jyoti Vihar-768 019, Sambalpur, Odisha.**
3. The suppliers must be either the manufacturer of the instruments/equipment or the authorized dealer/agent/representative of the manufacturer. In the case of dealer/agent/representative, certified valid copy of the dealership/agency/authorization issued by the manufacturer should be enclosed with the quotation.
4. The detailed specifications and other necessary information of instrument/equipment (with separate reference number) are given in this notification. The suppliers may refer to the desired instrument/equipment.
5. **The rates/price should be quoted in Indian currency.** The F.O.R – Sambalpur University and prices should include GST as applicable as per Government of India policy.
6. Delivery of the instruments shall be at "**School of Physics**", Sambalpur University, Jyoti Vihar-768 019 unless otherwise specified. **The price shall be inclusive of all taxes, transportation cost and cost of installation/commissioning, trial operation, comprehensive training and clearance charges (FOR Sambalpur University, Jyoti Vihar).** Necessary documents for clearing the consignment through customs authorities will be provided by the university.
7. The supplier must have supplied at least **five** similar EQUIPMENT/INSTRUMENTs to IISER/NISER/IIT/NIT/Govt.Universities/ Government Research Laboratories/ Educational Institutes or Industries, in last five years. Supporting documents such as P.O. Copy and corresponding installation certificate against the same needs to be furnished.
8. The OEM/Bidder/Certified Supplier should not be black listed in India. Certificate of

Registrar
Sambalpur University
Jyotivihar, Burla

same should be attached with the tender document.

9. The OEM/Bidder must have after sales & Service Centre with **GST Registration** in the State of Odisha as per OGFR Guidelines 2023 Sl. No. 214.
10. Supplier/Bidder must have quality Certificate such as ISO 9001-2015/NABL/ CE certificate and also have ROHs/ ISO 14001-2015 Environmental Certificate
11. The weblink (OEM) of quoted products should be provided in the Technical compliance Sheet. Details of parts of the products & experiments should be mentioned on the website.
12. **The department can ask for Physical Demonstration (If Required) / any technical details to ensure the equipment quality (Bidders should be present for technical presentation of the quoted items)**
13. The successful tenderer should supply and install the instrument/equipment within a period of 4 to 5 weeks from the issuing date of purchase order by the Registrar, Sambalpur University.
14. **100% payment after delivery and installation of the ordered items through NEFT/RTGS by the Head, School of Physics.**
15. The EMD of the successful tenderer will be refunded after completion of the supply and installation of the equipment to our satisfaction.
16. Documents such as instrument operation, calibration, maintenance, drawing, descriptive literature etc., if any, along with original instruction and data analysis manual should be supplied by the successful tenderer along with the equipment.
17. Instruments/equipment should be unpacked in the presence of the concerned person of Sambalpur University. The consignment will be accepted only after inspection.
18. Inspection certificates of the instrument / equipment inspected by the qualified engineer of the manufacturer and packed in accordance with the terms and conditions of this order must be enclosed.
19. During the warranty period or later whenever the firm is called upon to attend to the rectification of the defects/faults in the consignments, the firm shall attend to the repair work within a week. They should render timely back up service whenever called upon. **A certificate to the effect should be attached to the tender**.
20. **A certificate to the effect that instrument/equipment supplied is fully operational and no additional accessory or spare is required to make the instrument/equipment run should be issued along with the delivery challan/invoice**. The Registrar, Sambalpur University reserves the right to refuse payment in the event of not furnishing this certificate at the time of supply.
21. The Registrar, Sambalpur University reserves all the right to accept/reject any tender without assigning any reason thereof.
22. **Once the rate is approved by purchase committee, purchase order is placed on the successful tenderer for supply of the equipment/instrument.** The decision of the Purchase Committee shall be final and binding.
23. For any query regarding the tender notification write to : hodphy@suniv.ac.in
24. All disputes subject to Court of Law in the jurisdiction of Sambalpur.

Registrar
Sambalpur University
Jyotivihar, B...

Reference No.	Instrument Name	Page on which available
1	Planck's constant with photocell complete set up	5
2	Ionisation Potential set up	5
3	e/m Helical Experiment	6
4	Magnetic Susceptibility by Gouy's Method	6
5	Magneto resistance of a semiconductor set up	7
6	Study of energy band gap, diffusion potential and capacitance of p-n junction and impurity profiling of semiconductor set up	8
7	He-Ne laser experiment set up with diffraction grating having 7500-10000 LPI for diffraction experiment	9
8	Spectrometer with 20' MSD and 60 VSD	9
9	Power factor measurement complete set up	10
10	Digital Storage Oscilloscope (DSO) 70 MHz	11
11	Helmholtz coil apparatus for magnetic measurement	12
12	NMR Experiment	13
13	UV/Vis spectrophotometer (Solution)	14

Registrar
Sambalpur University
Jyotivihar, Burla

Ref. No. 232(1)/SU/PHY Dated:10.12.2025

Supply and installation of Planck's constant with photocell complete set up

TECHNICAL SPECIFICATIONS

- Light source : Tungsten-halogen 45 W.
- Light luminous Measuring System- **Record & Datahold**
- Scale : Length 300mm.
- Photocell : Cs Vacuum Phototube.
- Dark-current : < 0.002 μA.
- Display mode switch : Displays current (mA) or voltage(V).
- Current multiplier : X1, X0.1, X0.01 & X0.001.
- Accelerate Voltage : -15V to 0V & 0 to15V, < ±2%.
- Measuring error : < ± 15% compared with the recognized value (h=6.62619x 10-34J.S).
- Instruction Manual
- Warranty: Two Years onsite warranty

Ref. No. 232(2)/SU/PHY Dated:10.12.2025

Supply and installation of Ionisation Potential set up

TECHNICAL SPECIFICATIONS

- Noble Gas Filled Tetrode
- Filament Power supply: 2.6 -3.4 V continuously variable
- Power Supplies: 1.5 V fixed, (iii) 1.3 -10 V continuously variable
  0 -40 V continuously variable
- Scanning voltage: 0-95 V
- Scanning frequency: 115 ± 20Hz
- Multirange Digital Ammeter: & Voltmeter
- Display LCD 6000 Counts TRMS
- Range: DC Current: 600.0μA/6000μA/60.00mA/600.00mA/6A/10A
- AC Current (40 to 400Hz): 600.0μA/6000μA /60.00mA /600.00mA /6A/10A
- Capacitance: 9.999nF/99.99nF/99.99uF/999.9uF/ 9.999mF
- Resistance: 600.0Ω/60.00kΩ/60.00kΩ/6.000MΩ/60.00MΩ
- Instruction Manual
- Warranty: Two Years onsite warranty

Registrar
Sambalpur University
Jyotivihar, Burla

Ref. No. 232(3)/SU/PHY

Dated:10.12.2025

Supply and installation of e/m Helical Experiment

TECHNICAL SPECIFICATIONS

- Cathode Ray Tube Distance between Plates: d=1.4cm
- Length of Plates: l=3.23cm
- Distance between Screen and Plates (edge): L=14.5cm
- Focusing Voltage: Variable 0 - 300V DC
- Intensity Adjustment Voltage: Variable 0 - 60V DC
- Deflection Voltage: Variable 0 - 50V
- Solenoid : Copper Wound (Fitted on Base With Input Terminals)
- CRT connection: Octal socket
- Solenoid Power Supply: 0-65V, 2A (Through Rotary Switch in Steps of 5V)
- Warranty: Two Years onsite warranty

Ref. No. 232(4)/SU/PHY

Dated:10.12.2025

Supply and installation of Magnetic Susceptibility by Gouy's Method

TECHNICAL SPECIFICATIONS

ELECTROMAGNET:

- Coils: 900 turns.
- Coil Current: 4.5A(Max.)
- Field Intensity : Magnetic Field 20KG at 6mm air gap with tapered pole pieces
- Connection: 4mm safety socket's
- U Core: 150x130mm (LxH), 40x40mm crosssection.
- I Core: Length=150mm, 40x40mm cross section.
- Core material: Ferromagnetic. Base
- dimension: 360x180x33mm, Weight: 11 kg (Approx.)

DIGITAL BALANCE: Capacity :120/600 gms

Readability : 0.1gms ,Repeatability : (+/-) 0.1mg

CONSTANT CURRENT SOURCE

- Current: 0-20 mA DC, Resolution: 10 micro amperes
- Power: 220V ± 10%, 50 Hz AC, Display: 3½ digit LED
- **DIGITAL GAUSS METER**
- Range: 200 Gauss & 2 k Gauss
- Resolution: 0.1Gauss at 0 - 200 Gauss
- Offset: By Potentiometer to set ZERO,
- Display: 3½, Digit LED,
- Input Voltage: 220 V, ± 5 %, 50 Hz AC, Axial Hall Probe: InAs
- Instruction Manual
- Warranty: Two Years onsite warranty.

Registrar
Sambalpur University
Jyotivihar, Burla

Ref. No. 232(5)/SU/PHY Dated:10.12.2025

Supply and installation of Magneto Resistance of a Semiconductor set up

TECHNICAL SPECIFICATIONS

- Voltmeter - Display: 3½ digit, 7segment LED, auto polarity & decimal Indication.
- Voltage Range: X1 (0-200.0mV DC) & X10 (0-2.00) (VDC), 4mm socket
  Four probes: Spring type, Probe Spacing: 25mm
- Sample Ge Crystal (n-type) dimensions: 10 x 10 x 0.5mm.
  CONSTANT CURRENT SOURCE
- Current: 0-20 mA DC, Resolution: 10 micro amperes
- Power: 220V ± 10%, 50 Hz AC
- Display: 3½ digit LED
  DIGITAL GAUSS METER
- Range: 200 Gauss & 2 k Gauss
- Resolution: 0.1Gauss at 0 - 200 Gauss
- Offset: By Potentiometer to set ZERO
- Display: 3½ Digit LED
- Input Voltage: 220 V, ± 5 %, 50 Hz AC, Axial Hall Probe: InAs
  ELECTROMAGNET: Coils: 400 turns. Coil Current: 4.5Amp (Max.) Connection: 4mm safety socket's
- **U Core**: 150x130mm (LxH), 40x40mm cross section.
- **I Core: Leng**th=150mm, 40x40mm cross section.
- Core material: Ferromagnetic. Base dimension: 360x180x33mm
- Power: 220V ± 10%, 50 Hz AC
- Display: 3½ digit LED, Weight: 3 Kg approx.
- Instruction Manual
- Warranty: Two Years onsite warranty

Registrar
Sambalpur University
Jyotivihar, Burla

Dated:10.12.2025

Ref. No. 232(6)/SU/PHY

Supply and installation of **Study of energy band gap, diffusion potential and capacitance of p-n junction and impurity profiling of semiconductor set up**

TECHNICAL SPECIFICATIONS

- Selector Switch : V-I and V-T experiment, Bias & Junction
- Voltmeter & Current Display : 3½ digit, 7segment LED
- Voltage Range : 0.000-1.999V & Current Range : 0-20mA
- Display : 3½ digit, 7segment LED
- Selector Switch at V-T position/Junction :-
- Voltage Range : 0.000-1.999V
- Temperature Display : 3½ digit, 7segment LED
- Temperature Range : 273K to 353K
- Oven: Heater pin 4 & 5. Temperature pin 1 & 2
- Oven Connector : 5 Pin, DIN type
- Diode & Transistor : 4mm safety socket
- Input Voltage : 220V, 50Hz AC

TEMPERATURE SENSOR-

- Heating Element : 35 ohm
- Oven Connector : 5 Pin, DIN type
- Ambient Temperature : 353K
- Temperature Sensor : Pt100
- Output Pin : Heater pin 4 & 5. Temperature pin 1 & 2
- Instruction Manual
- Warranty: Two Years onsite warranty

Registrar
Sambalpur University
Jyotivihar, Burla

Ref. No. 232(7)/SU/PHY

Dated:10.12.2025

Supply and installation of **He-Ne laser experiment set up with diffraction grating having 7500-10000 LPI for diffraction experiment**

TECHNICAL SPECIFICATIONS

He-Ne LASER

- Wavelength: 632.8 nm,
- Working current: 4mA ~6mA,
- Output power : > 2mW,
- Working time : > 8 hrs.
- Working voltage : AC 220 V ± 22 V,
- Input Power :<2W

OPTICAL BENCH-

- BLACK Material : Aluminium alloy,
- Type : Hexagonal section,
- Scale : 0-100cm, Least count : 1mm
- GLASS SCALE- Length : 30cm, Least Count : 1mm

DIFFRACTION SLIDE

- Frame Size : 50mm x 50mm,
- Slit : Width=0.06mm, Separation=0.20mm
- Single slit : Tapered, Double slit : Tapered
- Circular apertures: 1.0, 0.60, 1.40, 0.30 mm nominal dia
- Warranty: Two Years onsite warranty

Ref. No. 232(8)/SU/PHY

Dated:10.12.2025

Supply and installation of **Spectrometer with 20" LC with 220mm dia**

TECHNICAL SPECIFICATIONS

Advanced Spectrometer:

- Main scale: Brass, dia. 175mm, 0 - 360°, 1 MSD 1/3°, Least count: 20 seconds
- Base size: Wooden, 450 x 300 x 12mm,
- Objective : Achromatic lens, F = 178mm, Ø 32mm,
- Slit: German silver with knurled screw,
- Reticle: 90° cross etched on glass, Ø 21mm,
- Eyepiece: 15x, Ramsdens eyepiece,
- Vernier: Brass, 4 verniers, (L x W) 60 x 48mm,
- Base: 220mm dia., Aluminium casting.
- Warranty: Two Years onsite warranty

Registrar
Sambalpur University
Jyotivihar, Burla

Ref. No. 232(9)/SU/PHY Dated:10.12.2025

Supply and installation of Power factor measurement complete set up

TECHNICAL SPECIFICATIONS

- Complete experimental setup Fitted with Bakelite enclosed in ALimrah type MS box Suitable for Table consisting of :-
- Digital Wattmeter 200 Watt – 01
- Digital Ammeter 2 Amp – 01
- Digital Voltmeter 300 V – 01
- Single Phase Variac 2 Amp – 01
- Inductive Coil – 01
- Capacitor – 01
- Rheostat 1.4A, 260 Ohms – 01 for load and Options for External Load facility should be Provided.
- Instruction Manual
- Warranty: Two Years onsite warranty

Registrar
Sambalpur University
Jyotivihar, Burla

Ref. No. 232(10)/SU/PHY Dated:10.12.2025

Supply and installation of Digital Storage Oscilloscope (DSO)

TECHNICAL SPECIFICATIONS

Bandwidth : 70 MHz
Lower Bandwidth Selectability: Option should be available
Number of Input Channel: 2 Analog Channel (50Ω BNC Female)
Input Impedance: 1MΩ
Maximum Sample Rate per channel: ≥2 GSa/s both Channels on Simultaneous operation.
Time Base Range: ≤5ns/div to ≥50 sec/div
Time base accuracy: 50 ppm or higher
Memory Depth: ≥2Mpts for all channels
Waveform update Rate: ≥195,000
Vertical Sensitivity: ≤500µV/Div. to ≥10 V/div
Vertical Resolution: 8 Bits
Time Mode: Normal, XY
Acquisition Mode:
Normal, Peak Detect, Averaging, High Resolution (increases vertical resolution to 12 bits)
Segmented Memory:
Desired Segmented memory feature with number of segments 500 or more
Cursors:
Both Horizontal & vertical Cursors are must in all mode of operation (i.e XY mode, FFT etc.)
Display: ≥7 inch TFT Display
Trigger Selection: Edge, pulse width, video, pattern/state
Parameters: More than 30+ automatic measurement function should be available along with math function
Bandwidth: Addition, Subtraction, Multiplication, division, FFT & low pass filter etc.
Bandwidth Upgradability: Yes
Lower Bandwidth Selectability: No jittering or Crosstalk between the channels
Number of Input Channel: AC 230V Indian type three pin plug provision.
Input Impedance:
Desirable for Standard I²C, SPI, UART/RS-32, CAN, LIN protocol analysis feature
Accessories: 2 BNC 50Ω Passive Probe (selectable 1:1 / 10:1 attenuation), Power Cord compatible to Indian Standard, PC interface USB Cable (≥1.5M), and Application Software.

Warranty: 3 years onsite warranty

Registrar
Sambalpur University
Jyotivihar, Burla

Ref. No. 232(11)/SU/PHY Dated:10.12.2025

Supply and installation of Helmholtz Coil apparatus for magnetic measurement

TECHNICAL SPECIFICATIONS

Constant Current source for coils: IC regulated constant current source with
Current Range: 0-500mA,
Line regulation: ±0.2 % for ± 10% mains variation
Load regulation: ±0.2 % for no load to full load
Display: 3 ½ digit 7 segment LED display
Power: 220 ± 10%, 50Hz
Protection: Protected against overload/short circuit
The provision have been made to connect Coil 1 and Coil 2 separately or both the coils in Helmoltz coil configuration.
Digital Gauss meter: Range: 0-200 G
Resolution: 0.1 G
Accuracy: ±0.5%
Display: 3 ½ digit 7 segment LED display
Transducer: Hall Effect IC Sensor
Radius of the coils: 112 mm
Number of turns: 500
Number of coils: 2
Sensor stand with Sensor rod: 1 no.
Length of sensor rod: 265 mm
Instruction manual

Warranty: 2 years onsite warranty.

Registrar
Sambalpur University
Jyotivihar, Burla

Ref. No. 232(12)/SU/PHY Dated:10.12.2025

Supply and installation of NMR Experiment Set up

TECHNICAL SPECIFICATIONS

NMR Basic unit with Accessories-

- Dimensions: 165x105x135 mm3 approx. Weight: 1.25 kg approx.
- Magnetic coils, Windings: 500 each,
- Magnetic field: 0 – 3.37 mT,
- Connectors: Coaxial power connectors,
- Dimensions: 20 mm x 74 mm diam. approx.
- Weight: 0.2 kg approx.
- Control console Probe input : 4-pin Lemo socket,
- Coil connectors: Sawtooth current source, 0–250mA,50ms, pair of co-axial connectors
- Magnetic output : Proportional to coil current, 0-1 V, BNC,
- Signal output: Resonance signal, 0-1 V, BNC socket,.
- (NMR), Dimensions: 170x105x45 mm3 approx. Weight : 0.5 kg approx.
- ESR/NMR Basic Set includes a basic unit, pair of coils, control panel & Plug-in power supply, 12 V AC.
- Product weblink must be mentioned
- Complete in all respect including 70MHz DSO
- Instruction manual
- **Warranty:** 2 years onsite warranty.

Registrar
Sambalpur University
Jyotivihar, Burla

Ref. No. 232(13)/SU/PHY Dated: 10.12.2025

Supply and installation of DOUBLE BEAM UV VISIBLE SPECTROPHOTOMETER (For Solution) with Software:

- **Optical system:** Double beam system with single Monochromator
- **Light Source:** Deuterium & Halogen Lamp
- **Light Source changeover:** Selectable between 330 & 350nm
- **Switching of light:** Automatic
- **Monochromator Type:** Holographic Grating
- **Detector:** Photodiode
- **Spectral bandwidth type:** Fixed Bandwidth

Optical Performances

- **Photometric Absorbance (Max):** ± 4 Abs
- **Scanning Speed (nm/min):** 5000
- **Photometric Transmittance accuracy:** ± 0 to 0.5 %
- **Source Wavelength Range:** 190 - 900 nm.
- **Photometric Reflectance:** ± 0 to 0.5 %
- **Baseline correction:** Automatic
- **Photometric Transmittance (Max):** ± 100 Percent
- **Focal Length (mm):** 0-149
- **Source Wavelength (Max):** 1100 nm
- **Wavelength Accuracy:** +/- 0.1 to 0.5 nm.
- **Photometric Absorbance Accuracy:** ± 0.001 to 0.01
- **Photometric Reflectance Accuracy:** ± 0 to 0.5 percent
- **Wavelength Repeatability:** ± 0.05 nm.
- **Resolution:** 0.3 nm to 1 nm
- **Bandwidth (nm):** 1

Other Specifications

- **Capacity of Sample holder/Sample Carousel:** 2 to 4
- **Maximum path length of Sample:** 10mm to 100 mm
- **Sample switching/selection:** Automatic
- **Display type:** LCD touchscreen/LED touchscreen
- **Display Size:** 7 to 15 inch
- **No. of Cuvettes supplied:** 2 to 10
- **Connectivity:** USB, Wireless, Wifi, Ethernet, Blue tooth
- **Suitable software for connecting PC & Printer:** Yes
- **Internal Storage:** 16-32 GB
- **Test Result printing:** Through external printer
- **Accessories covered in scope of supply:** Software, Manual
- **Power Supply:** 230v ± 10, 50Hz
- **Max. operating temperature:** 40^0C
- **Min. operating temperature:** 10^0C
- **Operating Humidity (RH)(%) at 40^0C:** 80to 85 percent
- **Display:** In-built display
- **Conformance to EMC/EMI as per EN 61326-1: 2013 Electrical equipment:** Yes
- **Availability of UL/CE certification as per EN 61010-1: 2010 safety requirement:** Yes
- **Spares and consumables inclusive in the scope of supply:** Yes
- **Warranty:** 2 years onsite warranty

Registrar
Sambalpur University
Jyotivihar, Burla