



Government Women Engineering College, Ajmer, Makhapura, Nasirabad
Road, Ajmer -305002

INVITATION LETTER

Package Code: TEQIP-III/2019/RJ/gwec/139

Current Date: 10-Oct-2019

Package Name: GWECA/2019/H & S/Physics lab

Method: Shopping Goods

To,

Sub: INVITATION LETTER FOR GWECA/2019/H & S/Physics lab

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Item Name	Quantity	Place of Delivery	Installation Requirement (if any)
1	Michelson's Interferometer Full Set Up	1	GWEC, Ajmer	Yes
2	Newton's Ring Full Set Up	1	GWEC, Ajmer	Yes
3	Spectrometer Set- Up with Plane Diffraction Grating	1	GWEC, Ajmer	Yes
4	Determination of Band Gap using a P-N Junction Diode.	1	GWEC, Ajmer	Yes
5	Sextant	1	GWEC, Ajmer	Yes
6	Spectrometer Set-up with Prism	1	GWEC, Ajmer	Yes
7	Charge and Discharge of a Condenser (time constant)	1	GWEC, Ajmer	Yes
8	Coherence Length and Coherence Time of Laser using He-Ne Laser.	1	GWEC, Ajmer	Yes

9	To Measure the Numerical Aperture of an Optical Fibre	1	GWEC, Ajmer	Yes
10	To Study the Hall Effect and Determine the Hall Voltage and Hall Coefficients	1	GWEC, Ajmer	Yes
11	Accessories of Sextant	1	GWEC, Ajmer	Yes

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme [TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.

3. **Quotation**

3.1 The contract shall be for the full quantity as described above.

3.2 Corrections, if any, shall be made by crossing out, initialling, dating and re writing.

3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit Price.

3.4 Applicable taxes shall be quoted separately for all items.

3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

3.6 The Prices should be quoted in Indian Rupees only.

4. Each bidder shall submit only one quotation and the bidder shall submit the **Technical Bid and Financial Bids in separate sealed covers**, clearly super-scribing “**Technical bid for Physics Lab**” and “**Financial bid for providing Physics Lab**”, respectively. ***These two sealed covers shall be put in another cover which should also be sealed, signed and duly super-scribed “Tender for providing Physics Lab with Package Code”.***

5. Quotation shall remain valid for a period not less than **90**days after the last date of quotation submission.

6. Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which

6.1 are properly signed; and

6.2 Confirm to the terms and conditions, and specifications.

7. The Quotations would be evaluated for all items together.
8. Award of contract The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.
- 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of Contract.
- 8.2 *The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be Incorporated in the purchase order.*
9. Payment shall be made in Indian Rupees as follows:

Payment Description	Expected Delivery Period (in Days)	Payment Percentage
Satisfactory Delivery & Installation	30	90
Satisfactory Acceptance	30	10

10. Liquidated Damages will be applied as per the below:
Liquidated Damages Per Day Min %:0.10
Liquidated Damages Max %:10
11. All supplied items are under warranty of **12** months from the date of successful acceptance of items and AMC/Others is .
12. You are requested to provide your offer latest by **14:30** hours on **04-Nov-2019**.
13. Detailed specifications of the items are at Annexure I.
14. Training Clause (if any) **yes**
15. Testing/Installation Clause (if any) **yes**
16. Performance Security shall be applicable: **0%**
17. **Original Information brochures/ Product catalogue**, if any must be accompanied with the quotation clearly indicating the model quoted for.
18. Sealed quotation to be submitted/ delivered at the address mentioned below, **Government Women Engineering College, Ajmer, Makhupura, Nasirabad Road, Ajmer -305002**

19. The bidder must submit the company details viz. **Firm Registration Certificate, GST Registration Certificate** and any other necessary documents duly certified by **Chartered Accountant / Notary Public** (Audited balance sheets including profit and loss accounts for the three financial years viz. 2015-16, 2016-17 & 2017-2018) along with their bid.
20. The quotation would be opened on **04-Nov-2019 at 15:00 hrs** at **TEQIP-III Office, Govt. Women Engineering College Ajmer, Rajasthan – 305002, India** in the presence of bidder representative who choose to attend the opening. The bidder representative who is present shall sign an Attendance Sheet evidencing their attendance.
21. **Only authorized dealer/ agency of Original Equipment Manufacturer (OEM)** or OEM should apply against this invitation for bid. In the case of the bidder, offering to supply goods under the bid, which the bidder does not manufacture or otherwise produce, the bidder has to provide Manufacturer's Authorization Certificate strictly as per format at **Annexure A**. Bids submitted without authorization certificate as per **Annexure A** will be summarily rejected.
22. OEM/Firm/Bidder must have executed atleast
One single order of similar items having values of 3.2 Lacs or higher
OR
Two orders of similar items having values of 2 Lacs or higher
OR
Three orders of similar items having values of 1.6 Lacs or higher
{The above said orders should have been undertaken in the last three years i.e. 2015-2016, 2016-2017, & 2017-2018, till the date of Invitation Letter}. Proofs of such documents must be enclosed along with their bid.
23. Details of Service Centres and Service support facilities from where services would be provided during and after the warranty period must be enclosed with their bid.
24. Notwithstanding the above, the Institute reserves the right to accept or reject any quotation(s) and to cancel the process and reject all quotation(s) at any time.
25. Dispute if any shall be subjected to the jurisdiction of Rajasthan in Ajmer/Jaipur.
26. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)
Name & Designation

Annexure I

Sr. No	Item Name	Specifications
1	Michelson's Interferometer Full Set Up	<p>MICHELSON INTERFEROMETER Base dimension: 290 x 212 x 168mm (L x W x H) Distance of mirror M2 from Beam Splitter : 100mm. Dimensions of beam splitter: 50 x 38 x 7 mm (L x W x T) Dimensions of compensating plate: 50 x 38 x 7 mm (L x W x T) Dimensions of mirrors M1 and M2 :30 mm dia, Thickness 10 mm. Reflectivity : Transmittivity: 50 : 50 Flatness of beam splitter : $\lambda/8$ Least count : 0.01 mm (coarse adjustment knob) Least count : 0.0001 mm (coarse adjustment knob)</p> <p>Diode LASER Peak wavwlength : 635 nm Operating Voltage : 5V DC Operating Current : 250mA Optical power : 0.4-0.8 mW Laser Product: Class II Operating Temp.:0-40 °C Storage temp.: -10 to 50 °C</p> <p>TELESCOPE Eyepiece : 10X Focusing : Slide type Mounting : 10mm dia. Rod PIN HOLE Dimension : 9.5x9.5x2.5 mm. Hole Dia. : 2mm</p> <p>GROUND GLASS Dimension : 9.5x9.5x2.5 mm. Glass : 1 side ground</p> <p>GLASS/PIN HOLDER Frame size : 10x10mm. Support rod : 100x10mm Material : Mild steel</p>
2	Newton's Ring Full Set Up	<p>NEWTON'S RINGS APPARATUS Dimension : 390 x 480 x 170mm approx. Micrometer : 0.01 mm least count Eyepiece : Ramsden 10X Objective : 3X Weight : 12.6 kg approx.</p> <p>SPHEROMETER (DISC BRASS) Types : 3 legs Vertical scale : 6mmx6mm (WxT) Micrometer : Dia. 40mm, Brass Lower disc : Dia. 60mm Range : 10-0-10mm Least count : 0.01mm</p> <p>PLANO CONVEX LENS Dia. : 61.5mm, Glass Focal length : 200mm</p>

3	Spectrometer Set- Up with Plane Diffraction Grating	<p>MERCURY LIGHT SOURCE Starting Voltage : 470 Volts Operating Voltage : 220 Volts, 50 Hz. Lamp House : 250 x 100 mm (L x dia.) Aperture diameter : 25mm Mercury Lamp : 125W</p> <p>ADVANCE SPECTROMETER Scale : Brass, Dia. 175mm. Objective : Achromatic, focal length 178 mm, apert+K15ure 32mm Slit : German silver. Reticle : 900 cross etched on glass. Least count : 20 seconds, Base : Aluminium Casting</p> <p>DIFFRACTION GRATING Size : 38 x 50 mm. Lines/inch : 15000</p> <p>MICROMETER SLIT Pitch : 0.5 mm. Least Count : 0.005 mm. Range : 0 - 6.5 mm. Diameter : 38 mm approx.</p>
4	Determination of Band Gap using a P-N Junction Diode.	<p>P-N JUNCTION SETUP Selector Switch : V-I and V-T experiment, Bias & Junction, Selector Switch at V-I osition/Junction Voltmeter Display : 3½ digit, 7segment LED, auto polarity Voltage Range : 0.000-1.999V Current Display : 3½ digit, 7segment LED Current Range : 0-20mA</p> <p>Selector Switch at V-T position/Junction :- Voltage Display : 3½ digit, 7segment LED Voltage Range : 0.000-1.999V Temperature Display : 3½ digit, 7segment LED Temperature Range : 273K to 353K</p> <p>CRO in Bias Position :- Frequency : 5KHz & 20KHz Voltage : 220mV (p-p) Output Connector : 3 Pin, DIN type Voltage Range : 0.00-10.00V 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</p> <p>OVEN WITH 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</p> <p>TRANSISTOR WITH CONNECTOR Transistor : NPN Type : BC109 Connector : 4mm Plug-in Socket</p> <p>DIODE Diode : P-N Junction Type : IN5402</p>

		CRO PROBE, Cable Length : 50cm Connector : BNC & 3 Pin DIN type, K9
5	Sextant	<p>Salient Features: German silver scale embedded in brass frame. Three shades for each horizon & index mirror. Heavy tripod base with levelling screws</p> <p>Key Topics:</p> <ul style="list-style-type: none"> • Height of tower building, pole etc. • Area of window, wall etc. • Angular dia-meter of stars • Artificial horizon. • Altitude of sun. • Sextant degree • Relation between angular diameter & actual dia-meter. <p>Tripod Base (C.I.) with levelling screws. 1 Adjustable Height stand (MS) Height 6 feet. 1 Measuring Tape : 5 meter. 1 Sextant with telescope 1 Instruction manual 1</p>
6	Spectrometer Set-up with Prism	<p>MERCURY LIGHT SOURCE Starting Voltage : 470 Volts Operating Voltage : 220 Volts, 50 Hz. Lamp House : 250 x 100 mm (L x dia.) Aperture diameter : 25mm Mercury Lamp : 125W</p> <p>ADVANCE SPECTROMETER Scale : Brass, Dia. 175mm. Objective: Achromatic, focal length 178 mm, aperture 32mm Slit : German silver. Reticle : 900 cross etched on glass. Least count : 20 seconds Base : Aluminium Casting PRISM (EDF/Crown/ Flint Glass) SIZE : 38 X 38 X 38 MM. Height : 38mm Material : EDF/Crown/ Flint Glass</p> <p>MICROMETER SLIT Pitch : 0.5 mm. , Least Count : 0.005 mm. Range : 0 - 6.5 mm., Diameter : 38 mm approx.</p>
7	Charge and Discharge of a Condenser (time constant)	<p>Student uses Plug- in Modules for circuit design. Do It Yourself Approach' provides better learning. Plug-in modules are design in transparent housing for visibility of the components. The symbols and name of the components printed for easy identification. ØVery convenient & easy to use 4mm sockets provided to Plug the modules in circuit board. Safety as per European standard. Circuit Board, Digital Multimeter, Flexible Lead Set (25cm), Flexible Lead Set (50cm), Flexible lead Set</p>

		(100cm), Capacitor Module 0.47 μ F, Capacitor Module 0.1 μ F, Capacitor Module 0.01 μ F, Capacitor Module 1000 μ F, Inductor Module 30mH, Inductor Module 60mH, Resistor Module 1k Ω , Resistor Module 10k Ω , Resistor Module 4.7k Ω , Resistor Module 100k Ω , Diode Module, Signal Generator
8	Coherence Length and Coherence Time of Laser using He-Ne Laser.	<p>Laser, He-Ne 2.0 mW with Inbuilt Power Supply Optical Bench Triangular Screen (30 x 30 cm) Set of 13 objects Slit holder Metal Scale Slit (Blade) Measuring tape (3 m) Clip -10 cm lens in holder -5 cm lens in holder +10 cm lens in holder +20 cm lens in holder Prism table Cylindrical Base Fixed Slider Transverse Slider Fixed Slider (Large Width) Optical Bench Triangular: Material : Aluminum extrusion Type : Triangular shape , Scale : 0-100cm Least count : 1mm This optical bench is rigid, heavy, stable and long lasting. It has four levelling screw and flexible feets. Fixed Slider: Material : AL Extrusion Base width : 35mm Height : 115mm It can hold rod from 8mm to 15mm Transversal Slider: Material : AL Extrusion Base width : 35mm Height : 25mm Movement : \pm 25mm Least count : 0.01mm It can hold rod from 8mm to 15mm He -Ne Laser, 2mW It is a He-Ne laser with in built power supply.It Can be mounted on rod or can be placed on a lab jack. Wavelength : 632.8 nm Working current : 4mA ~ 6mA, Output power : > 2mW Continuous working time : > 8 hrs. Working Voltage : 220 V AC" 50 Hz Input Power :<2 W, Dimension (L x B x H) : 300 x 62 x 82 mm, Weight : 1.5 kg (approx.)</p>
9	To Measure the Numerical Aperture of an Optical Fibre	<p>Two - meter PMMA Fiber (Multimode) 1 Two - meter SPMA Fiber (Multimode) 1 Single mode fiber 1 In -Line SMA Adaptor 1, Mandrel with rod 1 NA measurement JIG 1, Optical bench triangular 1 Digital Micro volt metre 1, Fixed slider 1 Transversal slider 2, Laser diode Tx unit 1 Laser diode Rx unit 1, Circular screen with angle measurement 1, Transparent solid 1 Flexible gun type lead(Yellow - 50cm) 4</p>

		<p>Flexible lead pair(Red & Black - 50cm) 2 Adaptor 9V, 1 Amp DC 2, Digital Multimeter 1 Single mode fibre Tx module 1 LASER TRANSMITTER MODULE Wavelength of laser transmission : 650nm +/- 5nm Laser threshold current & power : 20-25mA; 3mw(max) Optical power coupled into a : -3.0dBm (0.5mw) max PMMA fibre Mode of operation : Automatic current control and automatic power control modes selected through toggle switch., Monitor photodiode : Built-in (test photocurrent on Vm Analog modulation bandwidth : dc to 100Khz LASER RECEIVER MODULE Wavelength : 635nm Connector : SMA Optical power : 0.4mw (peak) Bandwidth : dc to 200khz(min) Vin & Vout : Analog 1mV to 300 mV p-p Storage temperature : -10 to 50°C, Cable length : 1 -20 m TRANSVERSAL SLIDER Material : AL Extrusion, Base width : 35mm Height : 25mm, Movement : + 25mm Least count : 0.01mm , It can hold rod from 8mm to 15mm</p>
10	To Study the Hall Effect and Determine the Hall Voltage and Hall Coefficients	<p>Hall Effect apparatus, Power Supply Constant current source, Digital Gauss meter Liner (Screw Driver): Flexible Plug leads 100cm, Black, Flexible Plug leads 100cm, Red, Flexible Plug leads 50cm, Yellow, Power Cord Ge Crystal PCB Constant Current Source: Current : 0-20 mA DC, Voltage Display : 0± 200mV @ 0.1mV, Resolution : 10 micro ampere, Current Adjust : 10-turns potential meter, Power : 220V ± 10%, 50 Hz AC, Display : 3½ digit LED, Weight : 3 Kg approx. Power Supply: Voltage : 0-20V DC continuously variable & stabilized Voltage display : 3½ digit LED Ripple : Less 25mV, Overload : Current limiting protection, Current : 5 A continuously variable, 10% to full rating, Current display : 3½ digit LED Working voltage : 230V AC, 50 Hz single phase Hall Effect Apparatus: Coils : 500 turns. Coil Current : 8.5Amp (Max.) Connection : 4mm safety socket. U Core: 150x130mm² (LxH), 40x40mm cross section. I Core : Length=150mm, 40x40mm cross section. Core material: Ferromagnetic. Base dimension : 360x180x33mm³, Weight : 8.8kg (Approx.)</p>

		<p>Digital Gauss Meter: Range : 200 Gauss & 2 k Gauss, Display : 3½ Digit LED, Resolution : 0.1Gauss at 0 - 200 Gauss Offset : By Potentiometer to set ZERO Input Voltage : 220 V, ± 5 %, 50 Hz AC Axial Hall Probe : InAs GE Crystal PCB: Crystal : Ge Wafer, P type Crystal Size : 6x7 x 0.5mm (L x W x Thickness) Resistivity : 1~ 10 ohm-cm, Orientation : <100> Offset pot : Trim pot, Connection : 4mm safety socket</p>
11	Accessories of Sextant	<p>German silver scale embedded in brass frame, Three shades for each horizon with index & horizon mirrors, Heavy tripod base with levelling screws (upper part of sextant).</p>

MANUFACTURER AUTHORIZATION FORM

No. _____ dated _____

To

Dear Sir:

Package No. _____

We----- (Name of the OEM) who are established and reputed manufacturer of _____ (*name and description of goods offered*) having factories at _____ (*address of factory*) with factory registration no. ----- do hereby authorize M/s _____ (*Name and address of Agent*) to submit a bid, and sign the contract with you for the goods manufactured by us against the above bid.

We hereby extend our full warranty as per your invitation letter, for the goods and services offered for supply by the above firm against this Invitation for Bid.

Yours faithfully,

(Name)

(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer or OEM and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.

FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: _____

To: _____

Sl. No.	Description of goods \ (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex-Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
Total Cost							

Gross Total Cost (A+B): Rs. _____

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. _____ (Amount in figures) (Rupees _____ amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of _____ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: _____

Address: _____

Contact No. _____