

INDIRA GANDHI ENGINEERING COLLEGE **SAGAR, MADHYA PRADESH**

(Near Makroniya Railway Station, Jabalpur Rd, Baheriya, Madhya Pradesh 470021)

Department of Mechanical Engineering

Tender no-IGEC/Mechanical/2022/2885

Date: 13/12/2022

(E-Tender document for Supply of Laboratory Equipment)

E- Tenders are hereby invited for supply of materials technology Laboratory equipment in mechanical engineering department at Indira Gandhi Engineering College, Sagar (M.P.) as briefly described hereunder:

1	Name of the tender	Supply of Laboratory Equipment of material technology Lab. in mechanical engineering department
2	Bid submission mode	Online through e-procurement mode on <u>E-tender</u> portal. https://mptenders.gov.in Three cover system: Cover 1 – Fee. Cover 2 – PreQual/Technical Bid Cover 3 - Financial Bid.
3	Tender document fee	Rs. 500/- (Rupees Five hundred only) (non-refundable & No Exemption is Allowed)
4	EMD	15000/- (Exemption as per MP govt rule)
5	Publish Date and time of availability of bid document on e-tender portal / college website.	17/12/2022, 12:00 PM
6	Online Bid Submission Start Date & Time	17/12/2022 01:00 PM
7	Online Bid Submission End Date & Time	09/01/2023 01:00 PM
8	Date and time of opening of bid at IGEC Sagar.	10/01/2023 02:00 PM
9	Contact details of concerned person for any query	Dr. S. D. Sharma Head of department, Mechanical Ph. no.- 9893328595
10	Portal -	https://mptenders.gov.in
11	Cost of Supply -	Rs. 7 Lacs (Approximately)

Notice Inviting Tender

Indira Gandhi Engineering college, Sagar (herein after referred to as IGEC Sagar) is an Educational Institution, invites E-tenders from reputed Original Equipment Manufacturers or their authorized agents/ dealers/ distributors/channel partners for Supply, Installation and Commissioning of the laboratory equipment as per the detailed terms and conditions and technical specification given below:

TERMS & CONDITIONS

1. Supply of mentioned items (including the essential accessories) should meet the specification and compatibility given in Annexure-I, II, III, IV, V and VI.
2. The quantity of the materials to be purchased may vary according to the requirement if the need arises (minimum quantity is one of each equipment).
3. Tender document can be viewed/purchased/submitted only online on website www.mptenders.gov.in by making online payment for the tender document. The cost of Tender Form is Rs. 500/- (non-transferable & non-refundable)
4. The tender document is not transferable to any other bidder.
5. The Bidder must upload CA certified Turnover of preceding 3 years (2019 to 2022) along with PAN Card.
6. The Bidder must submit GSTIN Registration along with bid.
7. The specification of the items quoted by the bidder should not be inferior to the specifications mentioned in the Annexure-I, II, III, IV, V and VI.
8. The Bidder must upload authorization from the manufacturer in case their Agents/Dealers/Suppliers are submitting tender on its behalf.
9. The Bidder should submit the copies of supply orders in support of experience of supply of items in Govt./Semi-Govt. Organizations.
10. The Bidder quoted Lowest Rates (inclusive of all taxes) for each item will be considered as L1 Bidder for such items. Thus, this L1 Bidder will be considered for supply of such quoted items.
11. In case similar L1 rates quoted by more than one Bidder for a given item, the experience of supply of such item in Govt./Semi-Govt. Organizations will be considered for taking final decision. Preference will be given to the bidder having more experience.
12. Institute has the right to place the order item-wise or as a whole to single or individual firms depending on the cost of the item/items.
13. Proposal (tender) that is incomplete or not in prescribed format will be rejected.
14. The bidder is responsible for registration on the portal www.mptenders.gov.in at their own cost.
15. The Bidder must submit the tenders in **TWO BID SYSTEM**.
 - (a) The Technical and Financial proposal should be submitted only through the e-procurement Portal.
 - (b) Technical Bid – The proposal should be submitted in prescribed technical format and specifications given on Annexure-I to VI on the portal (www.mptenders.gov.in).
 - (c) Financial Proposal – The proposal should be submitted in Financial Bid format given on the portal (www.mptenders.gov.in)

- (d) The hard copy of Technical and Financial Bid proposal which are submitted/uploaded through the Portal www.mptenders.gov.in, the same must be made available to the office of the Principal, Indira Gandhi Engineering College Sagar on or before the opening of technical bid. Technical bid and financial bid should be put and sealed in separate envelopes and then put these two envelope in a larger envelope before sending it to the Principal, Indira Gandhi Engineering College, Sagar. Details of the tender should be mentioned on the outer envelope
16. Only Technical Bid shall be opened on the date of tender opening.
 17. The Financial bid will be opened only on the prescribed date for those who qualify the Technical bid. This date will be announced later.
 18. Full name and status of the person signing the tender documents must be clearly mentioned in the Tenders.
 19. Tenders received after the due date and time shall not be accepted.
 20. The Bidder is required to pay Earnest Money Deposit (EMD) of Rs. 15000/- (Fifteen Thousand only) on www.mptenders.gov.in. and upload the details of tender document fee and EMD in technical bid in the prescribed format as given in Annexure-VII.
 21. As per "Madhya Pradesh Store Purchase and Service Procurement Rules 2015", exemption in EMD is applicable to Micro and Small Enterprises of State of Madhya Pradesh only.
 22. No interest in any case will be paid on EMD.
 23. The entire amount of EMD is liable to be forfeited and firm will be **blacklisted** and the order will be treated as cancelled in the following cases: -
 - (a) Supplier expresses inability to accept the order.
 - (b) Full ordered items not supplied.
 - (c) If the acceptance of the order is conditional as detailed in the execution of the order.
 24. The delivery and installation time from the date of placement of order shall not exceed 30 days in any case.
 25. In case the supplier fails to deliver and install the items within 30 days from the date of placement of order, the supplier will have to pay a penalty @ 2% per month on the order value or part thereof calculated for the period of delay.
 26. The entire material will be delivered and installed by the supplier in Mechanical Engineering Department at IGEC Sagar on FOR value.
 27. In Financial Bid, the Bidder needs to quote price including basic cost, insurance, freight, installation, commissioning, warranty (2 years) and should be inclusive of all taxes.
 28. If defects of any kind or deviations from specifications are detected and reported to the supplier, the supplier should replace the article within 15 days from the date of report.
 29. The successful bidder has to submit performance security deposit of 10% value of the equipment cost in the form of Bank Guarantee of a Commercial Bank for duration of **two years**.
 30. The Security Deposit will be returned only after the completion of warranty period which will be counted from the date of installation and based on performance of equipment.

31. In case the supplier fails to install and demonstrate the item within 10 days from the date of supply, the supplier will have to pay a penalty @ 0.5% of the order value per week for the period of delay.
32. Payment will be made within 45 working days of the successful installation and demonstration.
33. If equipment supplied are not according to the specifications and are not of proper quality, the same will not be accepted. Similarly, second hand, reconditioned, damaged, repaired and substandard equipment having poor workmanship of not to the satisfaction of the verification committee, will not be accepted. The equipment rejected by the Committee will be returned to the supplier at his own cost and risk, and entire amount of Earnest Money/Security Deposit is liable to be forfeited.
34. Make and Model of the article should be mentioned with tender document. Year of manufacturing should be mentioned and it must be of the latest make.
35. Conditional bid will not be entertained and liable to be rejected.
36. Any dispute arising out of this agreement in respect of quantity/quality/specification/delivery or payment shall be referred to the SOLE ARBITRATION of the Principal, Indira Gandhi Engineering College, Sagar. All legal disputes will be settled under jurisdiction of Sagar District.
37. The Principal reserves all rights to accept or reject any tender or the entire process.

Date:

Place:

Signature & Seal
of the Bidder along with date

Annexure-I

**Tender No -IGEC/Mechanical/2022/2885 Sagar, Date:-13/12/2022
For technical bid- Specifications of Metallographic Belt Grinder**

Make and model.....

Technical specifications of Metallographic Belt Grinder	Indicate meeting specification Yes or No.
<ul style="list-style-type: none">• Dependable belt grinder with completely enclosed structure for initial grinding of metallographic specimen.• Motor-0.5 H.P., 230V, Single phase (50/60Hz.)• Endless Belt 100mm x 915mm• Recessed work area for long samples.• Dynamically well balanced rollers.• Water faucet for intermediate rinsing for avoiding overheating.	

* Catalogue/Brochure/Technical Specification details should be uploaded along with the technical bid in support of above specifications.

Note: All the bidders are requested to provide true statement in the columns. Concealing of facts will liable to be rejected the tender completely. No communication will be made in the regard.

Date:.....

Place:.....

**Signature & Seal
of the Bidder along with date**

Annexure-II

Tender No -IGEC/Mechanical/2022/2885 Sagar, Date:-13/12/2022
For technical bid- Specifications of Cupping Test (Erichsen Test Machine)

Make and model.....

Technical specifications of Cupping Test (Erichsen Test Machine)	Indicate meeting specification Yes or No.
To reveal the cupping qualities of metal sheets & strips and also to test the adhesion, elasticity & porosity of coats of plants or varnish by way of comparison. The appearance of material & also of its constitution to some extent. Sample Width 70 to 90 mm Sample Thickness 0.1 to 2 mm L.C. of Micrometric Device 0.05 mm One turn of wheel 1.25 mm advance of penetrator Overall dimension (Approx) 450X500X500 mm Weight (Approx) 50kgs	

* Catalogue/Brochure/Technical Specification details should be uploaded along with the technical bid in support of above specifications.

Note: All the bidders are requested to provide true statement in the columns. Concealing of facts will liable to be rejected the tender completely. No communication will be made in the regard.

Date:.....

Place:.....

Signature & Seal
of the Bidder along with date

Annexure-III

Tender No -IGEC/Mechanical/2022/2885 Sagar, Date:-13/12/2022

For technical bid-Specifications of Double Beam UV-Visible Spectrophotometer

Make and model.....

Technical specifications of Double Beam UV-Visible Spectrophotometer	Indicate meeting specification Yes or No.
<p>Microprocessor/PC based UV-Vis Spectrophotometer with the following specifications: Photometric System: Double beam optics Photometric range : Absorbance: -4 to +4.0 Abs, Transmittance : 0.0 to 400% Photometric Accuracy : +/- 0.004 Abs. at 1.0 Abs & +/- 0.002 Abs. at 0.5 Abs Wavelength Range : 190 to 1100 nm or better Wavelength Accuracy : +/- 0.1 nm or better Wavelength Repeatability : +/- 0.1nm or better Photometric Repeatability : +/- 0.001 Abs or better Scanning speed : Selectable up to 3000 nm/min or better Spectral Bandwidth : variable/1 nm or better Stray light : Less than 0.02% at 220nm & 340 nm. Baseline Stability : less than 0.0003 Abs/H Baseline Flatness : less than 0.0006 Abs/H Noise Level : Less than 0.00005 Abs Monochromator : Czerny Turner blazed holographic grating Detector : Silicone photodiode (02 Nos.) USB Port : 3-4 USB ports for data storage/Transfer, Laptop/PC, connectivity Light source : Tungsten and Deuterium lamp.</p> <p>Other Important Requirements:</p> <ul style="list-style-type: none">• Spectrophotometer should have built in hardware validation for Wavelength accuracy, wavelength repeatability, resolution, stray light, photometric accuracy, photometric repeatability, baseline flatness, baseline stability, noise level and validation software along with optical filter for wavelength calibration.• The equipment should have at least 3 years warranty with provision for AMC after the warranty period.• Windows based Operating software should have built in features like real time concentration display, Photometric mode Single / multi-wavelength, Enzyme Kinetics calculation,	

event recording such as Addition of reagents during measurement, DNA/protein quantification etc.

- Spectrophotometer should have built-in display so that user can use the Spectrophotometer without PC/Laptop also.
- Peltier based Temperature controller for sample and reference with Temperature range 10 to 60 °C or better
- Quartz cuvettes of following specifications should be provided

Quartz Cuvettes	Volume	Pathlength	amount
	3 mL	10 mm	1 pair
	1 mL	10 mm	2 pairs
	0.5-0.8 mL	2 mm	2 pairs

- 5 boxes (5 × 100 pieces) of disposable plastic cuvette with chamber volume of L and path length of 10 mm and window of W × H: 2 mm × 3.5μ70 – 850 mm to be provided with the instrument.
- Additional Deuterium and Tungsten lamp to be included.
- Branded PC, Laser jet Printer and compatible online UPS with 30 minutes back up for Spectrophotometer & PC should be included.
- Department is presently located in its transitory building. We will move to our permanent building in the near future. Vendor should take the responsibility of moving the instrument from the present location and reinstalling the same in our own building as and when it is required.

* Catalogue/Brochure/Technical Specification details should be uploaded along with the technical bid in support of above specifications.

Note: All the bidders are requested to provide true statement in the columns. Concealing of facts will liable to be rejected the tender completely. No communication will be made in the regard.

Date:.....

Place:.....

Signature & Seal
of the Bidder along with date

Annexure-IV

Tender No -IGEC/Mechanical/2022/2885 Sagar, Date:-13/12/2022
For technical bid- Specifications of Rectangular Muffle furnace

Make and model.....

Technical specifications of Rectangular Muffle furnace	Indicate meeting specification Yes or No.
<p>Chamber size (volume) : (6H × 6L × 12D) Inch Temperature : Maximum 1300°C, Continuous run 1200°C Heating Rate : The furnace should be fast heating type with maximum attainable temperature should reach in 120 mins or better. Heating element : Silicon carbide Door system : Insert type, swing-aside parallel moving Temperature Control : Eurotherm//Yokogawa/Libratherm, micro processor based PID programmer cum digital temperature Indicator, minimum 4 programs, with 16 steps each Programme settings : Multi segment micro processor based programmable PID temperature controller coupled with thyristor power drive unit for Ramp/ Dwell control. Thermocouple : R Type Furnace lining : Hot face grooved refractory for fixing heating element backed by low thermal mass insulation (ceramic fiber board) to minimize the body temperature < 60°C at the maximum temperature and after giving maximum soaking. One suitable ceramic base for inner chamber base should be provided. Temperature Accuracy : ± 1°C Display : LED / LCD Display Power Input : 230 V ± 10 % Single Phase, 50 Hz AC</p> <p>Other requirements:</p> <ol style="list-style-type: none">1. Over temperature protection has to be provided in the furnace2. The temperature on the outer wall of the casing should not exceed 50°C3. The furnace should be kept inside an appropriate sized polished stainless steel casing. <p>General Instructions (i) The supplier should install the furnace at IGEC site and show the product is meeting all the technical specifications. (ii) The supplier should provide the detailed operating instructions for the temperature control unit, furnace. (iii) Supplier should provide instruction manual and circuit diagram with the supply. (iv)The supplier should give warranty certificate after the date of installation of the product</p>	

* Catalogue/Brochure/Technical Specification details should be uploaded along with the technical bid in support of above specifications.

Note: All the bidders are requested to provide true statement in the columns. Concealing of facts will liable to be rejected the tender completely. No communication will be made in the regard.

Date:.....

Place:.....

**Signature & Seal
of the Bidder along with date**

Annexure-V

Tender No -IGEC/Mechanical/2022/2885 Sagar, Date:-13/12/2022

For technical bid- Specifications of Strohlein apparatus (Carbon sulphur test)

Make and model.....

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Technical specifications of Strohlein apparatus (Carbon sulphur test)	Indicate meeting specification Yes or No.
TYPE- Double Burette FRAME- Thick polished wooden cabinet with white sun mica on the back side of glass part SPECIFICATIONS: “Semi Automatic” model where liquid is pushed by the air from rubber bellows fitted on the leveling bottle for transfer of collected gases during operation. Equalization and absorption of carbon –di-oxide is also done by rubber bellows as well motorized option. All glass parts are fitted in the close wooden cabinet. Consisting of carbon burette, Leveling bottle, Leveling Counter set, Three way stop cock, Absorption vessel, Gas cooling condenser, Straight three way stop cock Thermometer, ”L” glass bends, Filter trap, Sulphur burette, Sulphur cup, Reservoir bottle, ’h’ stop cock with single rubber bellow, Gas washing bottle with stand, Eye window(observation tube) mounted in close wooden cabinet fitted with wooden blocks & stainless steel clamp with screw, Combustion tube furnace (should go up to 1200 0 C) & control panel.	

* Catalogue/Brochure/Technical Specification details should be uploaded along with the technical bid in support of above specifications.

Note: All the bidders are requested to provide true statement in the columns. Concealing of facts will liable to be rejected the tender completely. No communication will be made in the regard.

Date:.....

Place:.....

**Signature & Seal
of the Bidder along with date**

Annexure-VI

Tender No -IGEC/Mechanical/2022/2885 Sagar, Date:-13/12/2022

For technical bid- Specifications of Metallurgical microscope with image analyzer with specimen set box

Make and model.....

Technical specifications of Metallurgical microscope with image analyzer with specimen set box		Indicate meeting specification Yes or No.
Magnification	100X to 400X with standard eyepieces and objectives 25X to 2000X with optional eyepieces and objectives	
Standard eyepieces	WF 10X/ Ø18mm	
Optical eyepieces	5X, 15X & 20X Micrometer 10X with least count = 0.1 mm Filar micrometer 10X Grain size measurement WF 10X (08 Grains)	
Standard objectives	Achromatic 10X/0.25, 40X/0.6	
Optical objectives	Achromatic 5X, 20X, 60X and 100X (oil and dry)	
Viewing head (45 degree angle)	Trinocular, interpupillary distance: 55mm to 75 mm	
Light distribution	100:0 % between camera port and binocular eyepieces	
Color filters	Yellow, blue and green	
Focusing system	Coaxial coarse and fine focus system	
Nosepiece	Quadruple (frontward ball bearing inner locating)	
Polarizer and analyzer	Set of polarizer and analyzer attachment	
Mechanical stage	Two layer and three axis moveable with coaxial X-Y movement. Size: 128X86 mm, Travel: 30X30 mm	
Illuminator	6V/20W, 220V AC/50 Hz, Halogen lamp, adjustable brightness	

* Catalogue/Brochure/Technical Specification details should be uploaded along with the technical bid in support of above specifications.

Note: All the bidders are requested to provide true statement in the columns. Concealing of facts will liable to be rejected the tender completely. No communication will be made in the regard.

Date:.....

Place:.....

**Signature & Seal
of the Bidder along with date**

Fee Cover Form (Annexure -VII)

INDIRA GANDHI ENGINEERING COLLEGE, SAGAR (M.P.)

Jabalpur Road, Makronia Station, Sagar- 470021

Phone No. : 07582 - 263844, 263896, 9826735071 Fax No: 07582 - 263844

✉ Email Id: dr.principalgec@rediffmail.com

Tender no-IGEC/Mechanical/2022/2885

Date: 13/12/2022

1. Name of Tendering Company/ Bidder/Firm/Agency:

.....
.....
.....

2. Registered Office Address with telephone/mobile No:

.....
.....
.....

E-Mail Address.....

3. Particulars of Earnest Money deposit (EMD)

(a) Online pay ref No.....

(b) Date

(c) for Rs.

4. Particulars of tender **document fee**

(No Exemption is Allowed)

(a) Online pay ref No.....

(b) Date

(c) for Rs.

Place

Signature

Date

Name

Designation

Seal & Signature of the Tenderer

Annexure-VIII

TENDER FORM- Technical

Tender No -IGEC/Mechanical/2022/2885 Sagar, Date:-13/12/2022

To
The Principal
Indira Gandhi Engineering College,
Sagar.

I/We wish to submit the tender for the item advertised by you.

1. Name of the item

Item No.	Item Name*	Participating Yes/No
1	Metallographic Belt Grinder	
2	Cupping Test (Erichsen Test Machine)	
3	Double Beam UV-Visible Spectrophotometer	
4	Rectangular Muffle furnace	
5	Strohlein apparatus (Carbon sulphur test)	
6	Metallurgical microscope with image analyzer with specimen set box	

* The specification of items to be seen and submitted as per format in Annexure-I to VI.

2. Name of the firm:

3. Telephone/Mob. No:

4. Email.ID:

5. Full Address:

.....
.....

6. Registration No. of Firm and Place:

7. Details of GSTIN:

8. Details of PAN:

Total documents attached..... Pages.....

I/We have read all the terms and conditions of the tender and shall abide by them. The materials shall be supplied strictly as per specification at Annexure-I to VI and in the given time period.

Date:

Place:.....

**Signature & Seal
of the Bidder along with date**

Annexure-IX

TENDER FORM- Financial

Tender No -IGEC/Mechanical/2022/2885 Sagar, Date:-13/12/2022

To
The Principal
Indira Gandhi Engineering College,
Sagar.

S. No.	Name of the firm	Per unit Price (inclusive of all taxes)	
		In figure (in Rs)	In words (in Rs)
1	Metallographic Belt Grinder		
2	Cupping Test (Erichsen Test Machine)		
3	Double Beam UV-Visible Spectrophotometer		
4	Rectangular Muffle furnace		
5	Strohlein apparatus (Carbon sulphur test)		
6	Metallurgical microscope with image analyzer with specimen set box		

Note: 1. Do not upload this document in the technical bid.

Date:

Place:.....

Signature & Seal
of the Bidder along with date

Format of Financial Bid on E-tender Portal

A	B	C	D	E	M	BB	BC
<div style="display: flex; justify-content: space-between; align-items: center;"> Validate Print Help Item Wise BoQ </div>							
Tender Inviting Authority: Principal, Indira Gandhi Engineering College, Sagar (M.P.)							
Name of Work: Supply of material technology equipments at Indira Gandhi Engineering College, Sagar.							
Contract No: IGEC/Mechanical/2022/2885 Sagar, Date:-13/12/2022							
Name of the Bidder/ Bidding Firm / Company :							
PRICE SCHEDULE <small>(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)</small>							
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Total price (inclusive of all taxes) should be enter by Bidder in Rs. P	TOTAL AMOUNT With Taxes in Rs. P	TOTAL AMOUNT In Words
1	2	3	4	5	13	54	55
1	Supply of material technology equipments						
1.01	Metallographic Belt Grinder	item1	1.000	Nos		0.00	INR Zero Only
1.02	Cupping Test (Erichsen Test Machine)	item2	1.000	Nos		0.00	INR Zero Only
1.03	Double Beam UV-Visible Spectrophotometer	item3	1.000	Nos		0.00	INR Zero Only
1.04	Rectangular Muffle furnace	item4	1.000	Nos		0.00	INR Zero Only
1.05	Strohlein apparatus (Carbon sulphur test)	item5	1.000	Nos		0.00	INR Zero Only
1.06	Metallurgical microscope with image analyzer with specimen set box	item6	1.000	Nos		0.00	INR Zero Only
Total in Figures						0.00	INR Zero Only
Quoted Rate in Words							

Bidder has to fill these shaded cells only

List of Documents to be uploaded by the Bidder
In the Technical Bid

Tender No -IGEC/Mechanical/2022/2885 Sagar, Date:-13/12/2022

S. No.	Document	Yes/No
1	CA certified turnover document of the firm of preceding 3 years (i) 2021-22 (ii) 2020-21 (iii) 2019-20	
2	Signed and seal scan copy Permanent Account Number (PAN)	
3	Signed and seal scan copy GSTIN Registration	
4	Copies of supply orders in support of experience of supply of items in Govt./Semi Govt Organization (if any)	
5	Authorization from the manufacturer in case their Agents/Dealers/Suppliers are submitting tender on its behalf	
6	Signed and seal scan copy of Fee Cover form specified in Annexure-VII	
7	Scan Copy of EMD online payment receipt for Rs.15,000/- or EMD exception certificate	
8	Signed and seal scan copy of Technical tender form related to specifications of the equipment in Annexure-I,II,III,IV,V,VI	
9	Signed and seal scan copy of Technical tender form in Annexure-VIII	
10	Signed and seal scan copy of terms and condition of this tender document	

Date:

Place:.....

Signature & Seal
of the Bidder along with date