

**LIMITED TENDER DOCUMENT
FOR
ELECTRICAL ENGINEERING LAB
UNDER APPLIED SCIENCE AND HUMANITY DEPARTMENT**



Last Date and Time of Submission: 24/01/ 2020 upto 12:30 PM

**M.G. GOVT. ENGINEERING COLLEGEKOTLA (JEORI) TEHSIL RAMPUR
CAMP AT J.N. GOVT. ENGG. SUNDER NAGAR MANDI HP**

Telephones: +91-1907-266048

Website: www.mggec.ac.in

Regtd. Post



OFFICE OF THE DIRECTOR-CUM-PRINCIPAL
MAHATMA GANDHI GOVT. ENGG. COLLEGE, KOTLA (JEORI)
CAMP AT J.N GOVT. ENGG. COLLEGE SUNDERNAGAR H.P.
E-mail gecrampur@yahoo.com Phone No:-01907 267048

No.GEC/KJR/Store Purchase/2018- 28 - 33
To

Dated:- 03/01/2020

Subject: Limited Tender for Machinery & Equipment of Electrical
Engineering Lab under Applied Science Department.

Sir,

Please find enclosed herewith a copy of tender document for the purchase of Machinery & Equipment of Electrical Engineering Lab under Applied Science Department of this institution which may please be filled up by quoting rates given in Annexure-B along with other necessary documents mentioned in the enclosed tender document.

o/r

Director/Principal
Mahatma Gandhi.Govt. Engg.
College Kotla (Jeori)
Camp at JNGEC Sundernagar



**OFFICE OF THE DIRECTOR -CUM-PRINCIPAL
MAHATMA GANDHI GOVT. ENGG. COLLEGE KOTLA (JEORI)
CAMP AT JNGEC SUNDERNAGAR DISTT. MANDI**

Telephones: +91-1907-266048

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**LIMITED TENDER FOR
ELECTRICAL ENGINEERING LAB.
UNDER APPLIED SCIENCE AND HUMANITY DEPARTMENT**

BID REFERENCE : **MGGEC/STR/ELECTRICAL/2019-20**

LAST DATE AND TIME FOR RECEIPT OF BIDS : **January 24, 2020 upto 12:30 PM**

TIME AND DATE OF OPENING OF BIDS : **January 24, 2020 at 01:00 PM**

PLACE OF OPENING OF BIDS : **O/O Director/Principal,
M. G. Govt. Engg. College, Kotla(Jeori) camp. At
Sundernagar Distt. Mandi (H.P.) Pin- 175018**

ADDRESS FOR COMMUNICATION: **Director/Principal,
M. G. Govt. Engg. College, Kotla(Jeori) camp. At
Sundernagar Distt. Mandi (H.P.) Pin- 175018**

INVITATION FOR LIMITED TENDER

Date : 03-01-2020
Tender No. : MGSEC/STR/ELECTRICAL/2019-20

Director/Principal, M. G. Govt. Engg. College Jeori (Kotla), Camp. at Sundernagar, Distt. Mandi (H.P.) Pin- 175018 invites sealed bids from eligible suppliers/distributors/authorized dealers for Machinery and Equipments of Electrical Engineering Lab under Applied Science and Humanity Department of this Institution as listed below:

Sr. No.	Name & Specification	Earnest Money Deposit (EMD)	Performance Security
1.	Attachment at Annexure - "B"	3% (Three percent of price value quoted)	5% (Five percent of price value quoted)

- The provisions in the instructions to suppliers and in the general conditions of contract are based on the provisions of the Standard Tendering Document - Procurement of Goods.
 - Price of bidding document (non-refundable) : (₹ 1000.00) (₹ One Thousand Only)
 - Last date and time for receipt of bid : January 24, 2020 upto 12:30 PM
 - Time and date of opening of bids : January 24, 2020 at 01:00 PM
 - Place of opening of bids : O/O Director/Principal,
M. G. Govt. Engg. College, Kotla(Jeori) camp. At Sundernagar Distt. Mandi (H.P.) Pin- 175018
 - Address for Communication : Director/Principal,
M. G. Govt. Engg. College, Kotla(Jeori) camp. At Sundernagar Distt. Mandi (H.P.) Pin- 175018
- All bids must be accompanied by a bid security as specified in the bid document and must be delivered to the above office at the date and time indicated above; failing which tender/bid will not be considered. The envelope must superscribed on the top right hand corner as "Limited Tender for Machinery and Equipments of Electrical Engineering Lab under Applied Science and Humanity Department".
- Non-refundable fee as indicated above must be submitted along with offering tender in the form of a Demand Draft from any nationalized bank in favour of Director/Principal, M. G. Govt. Engg. College Kotla(Jeori), camp. at Sundernagar, Distt. Mandi (H.P.) Pin- 175018, failing which tender / bid will not be considered.
- The main cover **Sealed Envelope** (super scribed on the envelope in top right side corner as " Limited Tender for Machinery and Equipment of Electrical Engineering Lab under Applied Science and Humanity Department") should contain documents: (i) Printed Brochure/Literature, (ii) Income Tax Returns/Balance Sheet of last three years (duly authenticated by representative of the supplier/bidder with seal of the firm/notary), (iii) Certificate of Registration of the firm, (iv) Authorization Certificates (if any), (v) PAN

Number, (vi) TAN/TIN Number Document, (vii) Price of Bidding Document (₹ 1000.00) in the form of demand draft (viii) Annexure-A (General Information Form), (ix) Earnest Money, (x) rate quoted for Machinery and Equipments of Electrical Engineering Lab. on prescribed format (Annexure B). The mode of the payment of earnest money should be in the **shape of FDR or Demand Draft for a period of one year pledged in favour of Director/Principal, M. G. Govt. Engg. College, Kotla(Jeori) camp. at Sundernagar Distt. Mandi (H.P.) Pin-175018. Please mention on top of the sealed envelope as “Limited Tender for Machinery and Equipments of Electrical Engineering Lab under Applied Science and Humanity Department”**. The single offer without complete documents mentioned above will be rejected and no correspondence in this regard will be sent to the bidder.

5. **The rates for the Machinery and Equipments of Electrical Engineering Lab are to be quoted as per the attached format only.** The bidders are also required to mention the taxes like GST, entry tax etc. clearly. It is important for all the suppliers/ manufactures to specify separately the type and the percentage of taxes. No discount (Educational/ or any ground) should be specified separately. If any supplier wishes to offer any kind of discount, it should be included in the unit price of the equipment/material/item. The suppliers will have to provide transportation of equipment's/material(s)/item(s) to the specified labs within the bid cost. Rate quoted should include the all charges like transportation, installation, training, carriage to lab. where equipment/material/item have to be installed or other type of charges (if any).
6. Tenders will be opened in the presence of suppliers or their representatives, who choose to attend on the specified date and time. Bids not having the relevant documents as listed above will be rejected out rightly. It will be presumed that such suppliers have just quoted the rates and are not in position to supply the same. No intimation in this regard will be sent to the supplier/ manufacturers.
7. In the event of the date specified for bid receipt and opening being declared as a closed holiday, the due date for submission of bids and opening of bids will be the following working day at the appointed times.
8. The Director/Principal, reserves the right to cancel the tender without assigning the reason thereof.
9. The conditional tenders/ incomplete tender/ tender without earnest money/without tender cost or tenders received after due date will be summarily rejected.
10. The discount should not be quoted separately. If any supplier wishes to offer any discount, he should include the same in the price of the item(s)/material(s)/machinery/equipment offered by him.
11. Authorized dealers of manufacturers can also apply for tender. Such bidders are required to submit the authorization certificate issued by the manufacturers.

INSTRUCTIONS

1. Clarification of Bidding Documents

- 1.1 A prospective bidder requiring any clarification of the bidding documents may notify the purchaser in writing or by telex or cable or fax at the purchaser mailing address indicated in the Invitation for Bids. The purchaser will respond in writing to any request for clarification of the bidding documents which it receives not later than 15 days prior to the dead line for submission of tenders prescribed by the purchaser. Written copies of the purchaser's response (including an explanation of query but without identifying the source of inquiry) will be sent to all prospective

bidders which have received the bidding documents by main office of M. G. Govt. Engg. College Kotla(Jeori), camp. at Sundernagar, Distt. Mandi (H.P.) or by post.

2. Amendment of Bidding Documents

- 2.1 At any time prior to the deadline for submission of bids, the purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment.
- 2.2 All prospective bidders who have received the bidding documents will be notified of the amendment in writing or by cable or by fax or by e-mail, and will be binding on them.
- 2.3 In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the purchaser, at its discretion, may extend the deadline for the submission of bids.

3. Bid Prices

- 3.1 The bidder shall indicate on the price schedule the unit price and total bid prices of the goods it proposes to supply under the contract.
- 3.2 Prices of item(s)/material(s)/machinery and equipment are to be submitted as per the format and should include the price of item(s)/material(s)/machinery and equipments. **Besides this the supplier/manufacturers are also required to list out the various taxes (%age and amount) to be included in the price of the equipment.**

4. Late Bids

- 4.1 Any bid received by the purchaser after the deadline for submission of bids prescribed by the purchaser will be rejected and/or returned unopened to the supplier.

5. Modification and Withdrawal of Bids

- 5.1 No bid tender may be modified subsequent to the deadline for submission of tender.

6. Opening of Tender by the Purchaser

- 6.1 The purchaser will open all bids, in the presence of suppliers'/representatives who choose to be present at M. G. Govt. Engg. College Kotla (Jeori), camp. at Sundernagar, Distt. Mandi (H.P.) **on 24/01/2020 at 01.00 PM.** The supplier's representatives, who are present on the date of opening of tender, will have to sign as an evidence of their attendance. In the event of the specified date of bid opening being declared a holiday for the purchaser, the bids shall be opened at the appointed time and location on the next working day.
- 6.2 The Suppliers' Names, tenders modifications or withdrawals, tenders prices, and the presence or absence of requisite bid security and such other details as the Purchaser, at its discretion, may consider appropriate, will be announced on the respective dates and time of opening of the bids. The late bids shall be returned unopened to the bidder after completion of the process.
- 6.3 Tender not opened shall not be considered for evaluation, irrespective of the circumstances.

7. Transportation

- 7.1 The supplier is required under the contract to transport the item(s)/material(s)/machinery to the specified place of destination within institute and at the specified lab. The transportation to such place of destination at M. G. Govt. Engg. College Kotla(Jeori), camp. at Sundernagar, Distt. Mandi (H.P.) will include insurance and shall be arranged by the supplier and the related cost shall be included in the contract price. It will be sole responsibility of supplier to install the item/material/machinery at the specified place in the lab., failing which, no payment will be

released. The supplier/manufacturers will also have to provide proper demonstration and training to the faculty.

8. Warranty

8.1 The warranty period shall be **36 months** from the date of acceptance of the Goods (after successful installation subsequent to inspection) or **39 months** from the date of supply, whichever occurs earlier. No separate cost in this regard has to be quoted and warranty cost (if any) should be included in the item/material/equipment cost. The supplier shall, in addition, comply with the performance guarantees specified under the contract. If, for reasons attributable to the supplier, these guarantees are not attained in whole or in part, the supplier shall, make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the contract at its own cost and expense and to carry out further performance tests in accordance.

Important: In the event of any correction of defects or replacement of defective item/material/equipment during the warranty period, **the warranty for the corrected/replaced item/material/equipment shall be extended** to a further period of 36 months.

8.2 Goods should be **FOR** M. G. Govt. Engg. College Kotla(Jeori), camp. at Sundernagar, Distt. Mandi, Himachal Pradesh, PIN 175018.

9. Payment

9.1 The method and conditions of payment to be made to the supplier under this contract shall be specified.

9.2 The supplier's request(s) for payment shall be made to the purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the services performed, and by documents, submitted pursuant to Clause, and upon fulfillment of other obligations stipulated in the contract. The payment shall be released only after satisfactorily report from the technical committee constituted at institute level.

10. Taxes and Duties

10.1 Suppliers shall be entirely responsible for payment of all taxes, duties, license fees, Octroi, Road permits, etc., incurred until delivery and installation of the contracted goods to the purchaser.

11. Jurisdiction

11.1 All the legal dispute will be settled within the jurisdiction of Sundernagar, Himachal Pradesh Only.

12. Performance Security

12.1 Within 21 days of receipt of the notification of contract award, the supplier shall furnish performance security to the purchaser for an amount of 5% of the contract value excluding annual maintenance cost, valid upto three years (3 years) after the date of completion of performance obligations including warranty obligations. The proceeds of the 5% performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete its obligations under the contract. The 5% performance security shall be denominated in Indian Rupees and shall be in form of FDR for a period of three years (03 years) **Pledged in the Name of Director/Principal**, M. G. Govt. Engg. College Kotla(Jeori), camp. at Sundernagar, Distt. Mandi (H.P.). The 5% performance security will be

discharged by the purchaser and returned to the supplier not later than 30 days following the date of completion of the supplier's performance obligations, including any warranty obligations under the contract.

13. The bidders are required to fill the Annexure-A (General Information Form). The filled Annexure-A is to be placed in the main sealed envelope.

Please fill this annexure positively

**Annexure-A
General Information Form**

1.	Date of Application	
2.	Name of the Firm	
3.	Address of the Firm	
4.	PAN Number	
	PAN Document	Attached as Page Numbers from _____ to _____ of Bid.
5.	Certificate of Registration of the Firm	Attached as Page Number _____ of Bid.
6.	TAN/TIN Number	
	TAN/TIN Number Document	Attached as Page Number _____ of Bid.
7.	Whether Manufacturer/ Authorized Dealer	
	Certificate of Authorization (In Case of Dealer)	Attached as Page Number _____ of Bid.
8.	Name and Address of Manufacturer (In case you are a dealer)	
9.	Name and Address of the service centre or the authorized agency who will provide warranty services on behalf of bidder	
10.	Demand Draft No. (Tender Fee)	
	Name of Bank/Branch	
	Date of Issuing	
11.	EMD Attached	YES / NO (Tick on appropriate)
	Name of Bank & Branch	
	FDR No./DD No.	
	Date of Issuing (FDR/DD)	

12.	Income Tax Return Statements/Balance Sheets of last three years (duly authenticated by representative of the supplier/bidder with seal of the firm/notary)	Attached as Page Numbers from _____ to _____ of Bid.
13.	Original Catalogue/Printed Brochure/Literature	Attached as Page Numbers from _____ to _____ of Technical Bid.

Note: - All the documents placed/attached shall be properly stamped with the seal of the firm and shall have the signature of the bidder/representative of the bidder.

(Signature with **Name** and **Seal**)

Annexure B
Name of Items with specifications

Electrical Engineering Lab under Applied Science and Humanity Department Department

Sr. No.	Name of Item with Specifications	Cost/Unit (Rs.) (Without Taxes)	Taxes to be Included (Also Indicate %)				Total Cost/Unit (Rs.) (Alongwith Taxes)	Qty. Required	GRAND TOTAL COST (Rs.)
			GST	Other Tax (A), if any	Other Tax (B), if any	Other Tax (C), if any			
1.	<p>DC Circuit Trainer Kit Kit should be able to perform: Verification of Law & Network Theorem on DC Circuit Trainer To verify Kirchoff's Current Law and Voltage Law To verify Thevenin's Theorem and to find equivalent voltage source circuit To verify Norton's Theorem and to find equivalent current source circuit To verify the Series and Parallel laws for resistances Power Supply 0-30V dc at 100mA (Continuous variable IC Regulated) +9V dc at 100mA , +5V dc at 100mA IC Regulated Power Supplies DC Voltmeter (65mm rectangular dial with switch) Selectable ranges of 0.5 , 1.5, 25 & 50V should provide. DC Ammeter (65mm rectangular dial with switch) Selectable ranges of 0.05, 0.5, 5, 50 & 100 mA should provide. Adequate no of electronic components , Operating manual to be given in hard and soft copy in pen drive with all experiments covered should be provided. test leads should be provided.</p>						06		

2.	<p>Single phase specifications: 1KVA, 2 Nos. of double wound iron core EI step down transformer. Primary: 230VAC/1.5A, 50Hz brought out on 2X2 SBS5 socket X 2 primaries Secondary: 200VAC/1.5A, brought out on 2X2 SBS5 socket X 2 secondary's.</p> <p>Mechanical specifications: Aluminum rack of 4 × 2 matrix will provide as flat demo panel system to house all experiment panels. Dimensions: 940 (H) ×1176 (L) × 305 (D) mm. Lightweight sturdy aluminum power coated flat demo panel system containing following panels will be provided.</p> <ul style="list-style-type: none"> -Input Single Phase Starter Panel - AC Secondary Voltmeter panel - AC Primary Voltmeter Panel - Dual range primary side AC ammeter panel - Dual Range secondary side AC ammeter panel - Milliohm (V-I method) /Reactive –Capacitive Load - Resistive Load & Dimmer Panel - 230V /1Phase Transformer Panel - 1 Phase MCB isolator Panel - Integrated AC (1 Phase) - Online Monitoring and Analysis <p>Modbus RS 485 interfacing to measure & analysis of power and energy Measurement Panel</p> <p>It should be divided into various colorful screw less overlay showing circuit diagrams to perform the following experiments as under :</p> <p>Finding transformer equivalent circuit , Study of transformer load regulation , Back to back test (Sumpner test) on two identical single-phase transformers, Measurement of winding temperature, Effect of type of load on transformer output waveform etc</p> <p>It should have test points facilities to observe different outputs.</p> <p>Set of patch cords, Operating manual to be given in hard and soft copy in pen drive with all experiments covered should be provided.</p>							01	
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3	<p>Voltage /Current/Energy /Watt Measurement Trainer</p> <p>The set up should be designed with following control panels mounted on the table standing ‘Aluminum Rack’ arrangement for easy understanding & performing various experiments Input 3 phase DOL Starter Panel should be provided. 4 pole MCB of 415 V/1A. DOL 9A Contactor with 230V / 50 Hz / 11VA COIL. Bimetallic thermal O/L relay with range 1.4A - 2.3A .</p> <p>Integrated AC (3 /1 phase) Measurement Panel Consist of 2 nos. of (48×96mm) Digital meters one each for 3phase & 1 phase Measures V, I, PF (0.2 lag unity – 0.2 lead), Hz. Current for 3φ meter = 1.5A (Balanced load), 1A/5A for 1φ meter (170-250V).</p> <p>1 Phase Motor, Alternator & Synchronous Motor Panel 1phase MCBs of 4A/1.6A – 2nos.</p> <p>Integrated AC (3 /1 phase) Measurement Panel Consist of (98×96mm) Digital meters for 3phase & 1 phase Measures Voltage Line to Line & Line to Neutral , Current for all 3 Phase up to 5A Power Factor , Frequency , Watt , VAR , VA and energy in KWHR</p> <p>Potential Transformer Panel Voltage Transformer (2 Nos.) , 1 standard and 1 under test Primary 230V & Secondary 24 VAC Multifunction 1 Phase Meter: Aux Supply : 230V AC 50MHz, Voltage : 0 to 300V , Current: 1A/5A range, Display : LCD Display , CTR :10/1A Modbus RS 485 interfacing to measure & analysis of power and energy, V, I, Hz, Pf, KVA, KW, KWH etc with Data Logging Software Online Monitoring and Analysis Modbus RS 485 interfacing to measure & analysis of power and energy On primary and secondary terminals of PT should brought out on front panel for connection. Lamp Load & Resistor (AC Resistors & DC Resistors) Load Panel , Inductive and Capacitive (LC) Load Panel should be provided to cover the following experiments :</p> <p>1) Current Transformer Testing 2) Potential Transformer Testing</p>						01	
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	<p>3) Calibration of Single Phase Energy Testing 4) Measurement of 3 Phase power by 1 ,2, 3 Wattmeter methods 5) Measurement of single phase power by 3 ammeter Method 6) Measurement of single phase power by 3 voltmeter method Set Of Patch Cords , Operating manual to be given in hard and soft copy in pen drive with all experiments covered should be provided.</p>								
4	<p>House / Commercial Wiring Installation Trainer It should have 'Aluminum' rack profile flat demo table top system with 1 Phase AC input supply : 1 Phase MCBs of 4A/1.6A - 2Nos. Grounding & protection panel consists of a 2 pole Earth Leakage Circuit Breaker (ELCB) 25A with current imbalance of 30mA , One NO push button to create Earth leakage fault , One SPDT to select HI- leakage or LO-leakage fault , One 15W bulb for Hi-Leakage fault & 22KW resistor for Lo leakage fault. Integrated AC (1 phase) measurement panel of Digital meter for 1 phase parameters V, I, PF, W, Wh, VA, VAR, Hz, etc. Current specs = 1A/5A for 1ph. meter (170-250V) AC Power supply panel: AC OSARAM power supply for metal halide lamp 70W (max. 5KV) Input 230VAC/0. Online Monitoring and Analysis Modbus RS 485 interfacing to measure & analysis of power and energy, V, I, Hz, Pf, KVA, KW, KWH etc with Data Logging Software DC Power supply panel SMPS power supply for LED ,Input 230VAC, Output +12V/5A, 60W , DC supply for down lighter , One way switch = 2 Nos. , Two way switch = 2 Nos. Buzzer/bell switch/ Neon panel Buzzer/Bell, I/P 230VAC , Bell switch , Neon lamp indicator and Kit kat fuse Dimmer/Fault panel: Dimmer, Fault 3 Nos. Sockets panel : Three pin AC mains Sockets = 3 Nos. ,230V/10A rating DP switch panel : Double pole single through four terminal S/W= 2nos ,</p>						01		

	<p>Rating 32A/240VAC should be provided. Lamp panel: Incandescent lamp = 1 No, CFL tube = 1 No. Various Lamp/Tubes & Strip LED Display panels how various wiring accessories , Conduit, Elbow joints, casing taping, Cleats, Batten with clips, cable/wires etc. Wiring practice board (1100 × 300 × 20 mm) Drill Machine, screw driver se, self-tapping screws, drill bits facilities provided to cover the following experiments : 1.Electrical Safety Rules for working in laboratories 2.Varity of wiring experimnts based on above operational panel 3.Study Of Protective Devices Panel 4.Study and use of Measurement Devices 5. Understanding working of various types of lamps including tubes, LED & other high intensity lamps. 6.Hands on wiring practice using cables , casing and hand tools</p>								
	<u>COST (In Figures)</u>								

Total Cost (In Words):

Detail of Taxes **to be included in Unit Price**

	Description of Tax	%	Amount (Rs.)
1.			
2.			

Authorized signature with seal