



MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

(Formerly WEST BENGAL UNIVERSITY OF TECHNOLOGY)

Main Campus: NH 12, Haringhata, Post Office - Simhat, Police Station – Haringhata, Pin - 741249

City Campus: BF-142, Sector -I, Salt Lake, Kolkata -700 064

TENDER FOR SUPPLY OF LAB INSTRUMENTS FOR POWER LABORATORY

Ref. No.: MAKAUT-WB/2020-21/PWR.LAB/001/LAB_INSTRU

Dated: 07-09-2020

Maulana Abul Kalam Azad University of Technology, West Bengal (MAKAUT, WB) invites quotation(s) for supplying various lab instruments for Power Laboratory at the Haringhata Campus of the University.

Please follow the Part-A, Part-B and Part-C of this tender for further details.

Part-A: General Information

- 1) Name of the Bidder:
- 2) The firm is running business from / for:
- 3) Address:
- 4) Official Contact Number(s):
- 5) Official E-mail address:
- 6) Contact Person detail [Name, Designation, Contact No. & E-mail address]:
- 7) Whether has *Valid* Trade License for Financial Year 2020-2021? **Yes / No**
- 8) PAN:
- 9) GSTIN:
- 10) P. Tax Registration Number:
- 11) Tender Fee (Rs.500/-) deposit detail:
 - a) Transaction reference no. and date:
 - b) Bank A/c No., Bank Name & Branch from where the amount was debited:
12. Any other necessary information that the bidder would like to mention:
 - a)
 - b)
 - c)
 - d)
 - e)
 - :
 - :
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Part-B: Item & Specifications

Sl. No.	Item & Specification	Quantity (Nos.)	Item Rate (Rs.)	Item Value (Rs.)	% of GST	GST Amt. (Rs.)	Total Value (Rs.)
1.a.	MULTIMETER (Metravi – Metrasafe)	1					
1.b.	MULTIMETER (Metravi-1910)	1					
2.	LCR METER (Metravi 4070D)	1					
3.	DIGITAL CLAMP POWER METER (Metravi 307N)	1					
4.	DIGITAL LUX METER (Metravi 1332A)	1					
5.	DIGITAL SIGNAL OSCILLOSCOPE (Metravi DSO-5100E)	1					
6.	FUNCTION GENERATOR (Metravi FG-10000)	1					
7.	<p>DETERMINATION OF THE GENERALIZED ABCD CONSTANT OF A TRANSMISSION LINE</p> <p>The set- up having comprised of artificial transmission line (about 300km, 200kv, 50Hz). Actual operating voltage -300V, Load current 5A, 50Hz, single phase. Total line contains uniformly distributed 3 nos. of two part network branches (each representing 100 km). All line components (i.e. Resistance, Inductance & Capacitance) are easily accessible for Externally connection by Armstrong’s patch chords. Details of the set-up are following: •Variac: 0-300V, 8A, single phase with zero interlocking -1 no. • Isolation transformer: 240V: 240V, 1.5KVA, normally air cool.- 01 no. • Voltmeter: Digital AC voltmeter, basic 0750V (Display 0-750KV), panel mount flash type, 96mm x 48mm, Aux supply: 230V AC -02 Nos. • Ammeter: Digital AC Ammeter basic 0-5Amps (Display 0-1000A), panel mount flash type, 96mm x 48mm, Aux supply: 230V AC - 02 Nos. • Phase Angle Meter : Digital phase Angle Meter, 0-300V/0-5A panel mount flash type, 96mm x 96mm, Aux supply : 230V AC (CAB’S make) 01 No. All terminals of the meters etc. are brought out on BS-4 terminals connection. All meters, voltage source, networks are fitted/ mount on Bakelite sheet which fitted on self stand, foot mounted, Table top, power coated MS sheet panel with required Armstrong’s patch chords.</p>	1					
8.	<p>OC AND SC TEST AND POLARITY TEST OF A SINGLE PHASE TRANSFORMER</p> <p>a) TRANSFORMER 500 VA, 1ph,</p>	1					

Sl. No.	Item & Specification	Quantity (Nos.)	Item Rate (Rs.)	Item Value (Rs.)	% of GST	GST Amt. (Rs.)	Total Value (Rs.)
	230V/110V double wound by copper wire CRGO core air cooled Transformer enclose type1no b)CONTROL PANEL: • D.P MCB 10A-----1 no •Variac.....230V/8 A • 0 – 300VAC meter (CABS) -----2 no • 10A AC meter (CABS) ---1 no • 5A AC meter (CABS) -----1 no • Main ON OFF switch • Indicating lamp & Terminal Panel board consists of M.S. Channel and bakelite board All terminals are to be available on the panel board						
9.	DIFFERENT METHODS OF STARTING OF A 3 PHASE INDUCTION MOTOR & THEIR COMPARISON INDUCTION MOTOR Induction motor : sq.cage type induction motor, 3-phase, 1HP capacity, 415 volts, 1460rpm, Star-Delta type : 01 No. • Ammeter: 0-10A, (CABS make) : 01 No. • Voltmeter: 0-500V(CABS make) -01 No. • Starter : DOL starter & Star –Delta, 1 HP capacity,415 V-01 No. each • Auto transformer starter (Tap:25%, 50%, 75%), 1HP, 415 V - 01 No. • Motor are mounting on MS channel base. Starters are mount on table top Bakelite panel board. All the terminals of the motor, starter etc. brought out on the panel for flexible connection with TP MCB, indicators, connecting patch cords, operating manuals etc.	1					
10.	SPEED CONTROL OF 3 PHASE SQUIRREL CAGE INDUCTION MOTOR BY DIFFERENT METHODS & THEIR COMPARISON • Induction motor : sq.cage type induction motor, 3-phase , 1HP capacity,415v,1460rpm • Static Frequency drive: 1HP capacity V/F drive, input: 5v, 50Hz, output: 0-415v, 050Hz: 01No. •Variac: Three phase, table top type, portable, 0-440v, 8 amps -01 no. 78,500/-each 18% • Ammeter:0-5 A ,(CABS MAKE): 01 No. • RPM meter: Digital panel type RPM meter with proximity sensor- 01 No. Motor are mounting on MS channel base. Drive, Meters are mount on a table top Bakelite panel board. All the terminals of the motor, Drive Meters etc. brought out on the panel for flexible connection with TP MCB, indicators, connection patch cords operating manuals etc.	1					

Sl. No.	Item & Specification	Quantity (Nos.)	Item Rate (Rs.)	Item Value (Rs.)	% of GST	GST Amt. (Rs.)	Total Value (Rs.)
11.	STUDY OF THE CHARACTERISTICS OF A DC MOTOR a) DC SHUNT MOTOR • 0.5 HP / 220 V / 1500 RPM / DC Shunt Motor - Class F Insulation - Horizontal Foot mounted - Self-Fan Cooled - Screen Protected Drip Proof (SPDP) - IP-22 - Protection with Single Shaft Extension - Fabricated Base Plate suitable for mounting the two machines 60,500/-each 18% which will be coupled to each other by flexible coupling to form a set. b) Control Panel • Digital/ Analog DC Voltmeter Make : Cabs/AE..... Range : 0-300V.....Quantity : 1 • Digital/ Analog DC Ammeter Make : Cabs/AE..... Range : 0-10A.....Quantity : 1 • Digital/ Analog DC Ammeter Make : Cabs/AE..... Range : 0- 2A.....Quantity : 1 • DC drive / Variac for speed control of the Prime mover • Brake belt pulley arrangement for loading the DC Motor • Main ON-OFF switch • LED indicator	1					
	TOTAL	--	--	XXXXX	--	XXXXX	XXXXX

Part-C: General Terms & Conditions

- 1) The bidder should be a registered firm under prevailing rules having an office in West Bengal, preferably in Nadia, North 24 Parganas or Kolkata and will provide essential registration numbers like PAN, GSTIN, Profession Tax, etc.
- 2) The web tendering process will be two-stage bidding: (a) Technical and (b) Financial.
- 3) In order to maintain the confidentiality, the financial bid (BoQ) must be a password-protected file. The bidders have to send both Technical and Financial bids to purchase@makautwb.ac.in mail address and the password of the password-protected financial bids file to registrar@makautwb.ac.in mail address.
- 4) The total of "Item Value (Rs.)", "GST Amt. (Rs.)" and "Total Value (Rs.)" should be mentioned in the BoQ. The sum of the "Total Value (Rs.)" column will be considered the total bid price. No other charge in addition to that value will be accepted by the University (except any hike in Govt. levies, duly supported by the respective Govt. order / notification).
- 5) Last date of submission of bids: 14th September, 2020 (through e-mail only).
- 6) Any firm already having any legal dispute with the University need not to submit the bid.
- 7) The Technical Bid should contain the following items in the respective sequence:
 - a) Duly filled formats as mentioned in **Part-A**.
 - b) Valid Trade License (for the financial year 2020-2021) of the firm. *In case the latest Trade License (2020-2021) not yet available to the firm, trade license for 2019-2020 may be enclosed along with a copy of application for renewal / fees payment receipt for the financial year 2020-2021.*
 - c) PAN Card copy
 - d) GSTIN Copy
 - e) P. Tax Registration Copy
 - f) Any other document, the bidder feels necessary to furnish.
- 8) Apart from the above list mentioned above, the University may ask the bidder for any other document(s) / information, if feels necessary. The bidder has to furnish the document(s) / information immediately failing which his bids will be rejected.
- 9) All the documents should be authenticated with official stamp and signature / signatures thereon by the bidder.
- 10) Submission of false document(s) / information by the bidder will result into cancellation of bid and the University may take strict action against that bidder.
- 11) Any document sent in .jpeg / .jpg / .doc / .docx / .xls / .xlsx format will not be accepted.
- 12) Incomplete / Partial bidding will not be allowed. The commercial bid should be exactly as per the given BoQ format. Rate-based quotation is not preferred.
- 13) **Tender Fee (Non-Refundable) detail:**
 - a) Tender Fee Amount : Rs.500/- (Rupees Five Hundred only)
 - b) Bank & Branch : Indian Bank, Salt Lake Branch
 - c) Bank Account No. : 6360279330
 - d) Bank Account Name : MAKAUT, WB
 - e) IFS Code : IDIB000S147
 - f) Mode of deposit : NEFT / Net Banking / UPI (through various payment gateways)

The bidder must mention the transaction details in Part-A of this tender which will be subject to cross-checking at the University end during the time of technical evaluation. Bid without tender fee and/or without relevant deposit details will not be considered.

- 14) The University reserves the right to accept or reject any bid without showing any reason.
- 15) Any dispute which may arise between the bidder and the University regarding this bidding shall be referred to the Vice Chancellor of the University whose decision shall be final and irrevocable in this regard.
- 16) Being the lowest bidder (L1) in term of quoted amount (incl. all) may not be the only condition to receive the order, other criteria like having PAN, GSTIN, location of office, etc. may also be considered during selection of the eligible bidder. Decision of the University in such case will be the final.
- 17) In case the selected bidder is unable to supply the items after being selected to supply the items or after receiving the respective order from the University, the bidder should immediately inform the University Authority about the same by e-mail. Decision of the University in such case will be the final.
- 18) Items should be as per the specifications mentioned in **Part-B** of this tender.
- 19) Warranty on the items should be available as per the OEM policy. Post sales service should be ensured by the bidder / manufacturer as and when required by the University.
- 20) Delivery of the items to the destination is solely the bidder's responsibility and no extra charge will be paid by the University for the same. Any damage of any item during transit will be the responsibility of the bidder.
- 21) Govt. levies will be as per existing Government Rules. The University will provide DSIR Certificate against which all permissible tax relief has to be ensured.
- 22) If any vendor is registered under GST Composite Scheme, the same is to be mentioned in Part-A (Item No.9). The same may also be mentioned in the BoQ.
- 23) Payment will be subject to successful delivery and installation (if required) of the required items and necessary approval by the Approval Authority of the University. No additional charge will be paid by the University towards installation charges.
- 24) Apart from submitting the hard copies, a copy of the order, challan and bill / invoice should be mailed to: finance@makautwb.ac.in.
- 25) The bidder should submit GST-compliant bill / invoice for GST bill / invoice. Copy of the order received by the vendor always should be attached to the challan and bill / invoice.
- 26) PAN, GSTIN and Bank details of the bidder are to be mentioned in the bill / invoice.
- 27) Statutory deductions (if any) during payment process will be made as per existing Government Rules.
- 28) The payment will be made only in favour of the bidder's name. Any exception in this regard will subject to the consideration of the University Authority only.
- 29) For any query related to the bid submission, the bidder may contact the University by e-mailing to purchase.makaut@gmail.com.

Sd.
Registrar
MAKAUT, WB