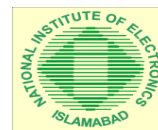




**NATIONAL INSTITUTE OF ELECTRONICS**  
**Ministry of Science & Technology**  
**Government of Pakistan**  
**17, H-9, Islamabad**



**Tel: 051-9265009-13 (Ext: 217)**

**Fax: 051-9265027**

**TENDER NO. 04/2020-21/NIE**

**MISC. EQUIPMENT (I.E. HAND HELD DIGITAL LCR METER, RUGGED (ABS/PLASTIC) ENCLOSURE FOR BOX, ALUMINIUM HOUSED AXIAL WIRE WOUND PANEL MOUNT RESISTOR, METAL FILM RESISTOR, PRECISION LOW WATTAGE METAL FILM RESISTORS, POLYESTER CAPACITOR PET, SMD/SMT REWORK & SOLDERING STATION AND COLOR PRINTER) FOR COTC-EP LAB**

S. No.	Name of Item	Qty	Unit Price Pak Rupee	Total Price Pak Rupee
1.	<p><b>Hand-held Digital LCR Meter with standard accessories and following specifications:</b></p> <p><b>Make: EU/ USA Origin (GWINSTEK, Fluke, Keysight, HP, Agilent, or any equivalent renowned manufacturer</b></p> <p><b><u>Specifications:</u></b></p> <ul style="list-style-type: none"><li>• Hand-held Digital LCR meter, capable to measure Resistance, Inductance and Capacitance with the following specifications:</li><li>• 20,000 counts resolution or better</li><li>• 0.2% accuracy or equivalent/better</li><li>• Impedance/Resistance: 2 <math>\Omega</math> to 200 M<math>\Omega</math> or better</li><li>• Capacitance: 20 pF to 20 mF or better</li><li>• Inductance: 20 <math>\mu</math>H to 2000 H or better</li><li>• Wide LCR ranges with 5 selectable test frequencies (100Hz, 120Hz and 1kHz, 10kHz and 100kHz) or better/equivalent.</li><li>• Auto identification (Ai) function supportive (displays component type and measurements)</li><li>• Detailed component analysis with DCR, ESR, Z, D, Q, <math>\theta</math> functions or better/equivalent.</li><li>• Supportive Battery life of 16 hours or better</li><li>• Capable to power up on Ac-power</li><li>• IR-to-USB connectivity for data logging to PC or any equivalent.</li><li>• Required with ISO/ IEC 17025 accredited Calibration certificate with complete measurements.</li></ul> <p><b>Note: Prices be quoted for unit, calibration certificate and accessories separately and shall be provided with soft carrying case.</b></p>	01		

2.	<p><b>Rugged (ABS/Plastic) Enclosure Box with standard accessories and following specifications:</b></p> <p><b>Make: Any renowned manufacturer</b></p> <ul style="list-style-type: none"> <li>• Rugged Enclosure Box capable of providing safe packaging of electronic circuits, finished plastic/ABS quality with following specifications:</li> <li>• Dimensions: L * W * H =160 mm* 96 mm* 45 mm or better/equivalent.</li> <li>• Material: Plastic/ ABS/Aluminum coated or equivalent/ better</li> <li>• Color: Black/ Grey or White.</li> <li>• Be quoted with accessories to lock, protect, and seal the box such as screws, IP protection glue, conformal coatings etc.</li> <li>• Box shall be capable to provide enough support to sustain shocks and vibration for safe use and transportation of electronic circuits.</li> <li>• Improved/better Ingress Protection would be an added advantage</li> </ul> <p><b>Note: Necessary sample be submitted with the technical bid for evaluation. Any other/better quality, material with better specification would be preferred.</b></p>	200		
3.	<p><b>1.5 KΩ Aluminium Housed Axial Wire Wound Panel Mount Resistor with standard heat sink</b></p> <p><b>Make: EU/USA origin (ARCOL/ RS Pro/ HASCOL/ Farnell or any equivalent renowned manufacturer)</b></p> <ul style="list-style-type: none"> <li>• Resistance Value: 1.5 kΩ with the following specifications:</li> <li>• Wattage: 100 Watts or above/ better</li> <li>• Shall be Provided with Standard heat sink</li> <li>• Accuracy: ±5% or better</li> <li>• Temperature coefficient: 100ppm/°C or better</li> <li>• Dimensions: 24.1 x 88 x 47.5mm or better</li> <li>• High stability</li> <li>• Shall be quoted with statement of conformity by manufacturer</li> </ul> <p><b>Note: Any above/ better specifications would be preferred</b></p>	30		
4.	<p><b>Metal Film Resistor with standard accessories and following specifications:</b></p> <p><b>Make: (Farnell / Vishay/ RS components/ RS Pro or any equivalent renowned manufacturer)</b></p>			

	<p>Through Hole Metal Film Resistances of following values and specification:</p> <p>a) 1.5 k<math>\Omega</math> (2 Watts or above/ better)</p> <p>b) 5.6 k<math>\Omega</math> (2 Watts or above/ better)</p> <p>c) 1.0 M<math>\Omega</math> (1 Watts or above/ better)</p> <p>Other specifications shall include:</p> <ul style="list-style-type: none"> <li>• Metal Film Resistor or equivalent</li> <li>• Accuracy: 5.0 % OR better</li> <li>• High stability</li> <li>• Low temperature coefficient (if applicable)</li> <li>• Shall be quoted with statement of conformity by manufacturer</li> </ul> <p><b>Note: Any above/ better specifications would be preferred</b></p>	1000		
5.	<p><b>Metal Film Axial Leaded Resistor with standard accessories and following specifications:</b></p> <p><b>Make: EU/USA origin (RS Pro/ Vishay/ RS components/ or any equivalent renowned manufacturer)</b></p> <ul style="list-style-type: none"> <li>• Metal Film Axial leaded resistor, Low wattage &amp; Resistors with value of 10 M<math>\Omega</math> with following specifications:</li> <li>• Metal Film Axial leaded resistor or equivalent/ better</li> <li>• Accuracy: 0.5 % OR better</li> <li>• High stability</li> <li>• Wattage: 0.6 Watts or better</li> <li>• temperature coefficient: 25 ppm/ <math>^{\circ}</math>C or better/ equivalent</li> <li>• Provided with statement of conformity by manufacturer</li> </ul> <p><b>Note: Any above/ better specifications would be preferred</b></p>	1000		
6.	<p><b>Precision, Low wattage Metal Film Axial leaded resistors</b></p> <p><b>Make: EU/USA origin (RS Pro/ Vishay/ RS components/ or any equivalent renowned manufacturer)</b></p> <p>Metal Film Axial leaded resistor, Low wattage &amp; precision Resistors with following values:</p>			

	<p>a) 10 <math>\Omega</math></p> <p>b) 100 <math>\Omega</math></p> <p>c) 500 <math>\Omega</math></p> <p>d) 1 k <math>\Omega</math></p> <p>e) 10 k <math>\Omega</math></p> <p>f) 100 k <math>\Omega</math></p> <p>e) 1 M <math>\Omega</math></p> <p>The above resistor should have following specifications:</p> <ul style="list-style-type: none"> <li>• Metal Film Axial leaded resistor or equivalent/ better</li> <li>• Accuracy: 0.25 % OR better</li> <li>• High stability</li> <li>• Wattage: 0.4 Watts or better</li> <li>• temperature coefficient: 25 ppm/ <math>^{\circ}\text{C}</math> or better</li> <li>• Provided with statement of conformity by manufacturer</li> </ul> <p><b>Note: Any above/ better specifications would be preferred</b></p>	<p>100</p> <p>100</p> <p>100</p> <p>100</p> <p>100</p> <p>100</p> <p>100</p>		
8.	<p><b>Polyester Capacitor PET with standard accessories and following specifications:</b></p> <p><b>Make: EU/USA origin (Panasonic/ NISSEI or any equivalent renowned manufacturer</b></p> <p>Through Hole Metalized polyester film Capacitor with values:</p> <p>a) 120 nF @ 1000 VDC or above/ better</p> <p>b) 6.8 <math>\mu\text{F}</math> @ 250 VDC or above better</p> <p>the above capacitors must have following specifications:</p> <ul style="list-style-type: none"> <li>• Metalized polyester film, non-inductive structure</li> <li>• Equipped with self-recovery functionality for high reliability</li> <li>• Superior electrical characteristics</li> <li>• Coated in fire-resistant epoxy plastic</li> <li>• Polyester Capacitor PET Resistors or equivalent</li> <li>• Accuracy: <math>\pm 10\%</math> or better</li> <li>• High stability &amp; Low ESR</li> <li>• Provided with statement of conformity by manufacturer</li> </ul> <p><b>Note: Any above/ better specifications would be preferred</b></p>	<p>250</p> <p>30</p>		

9.	<p><b>SMD/SMT Rework and Soldering Station with standard accessories and following specifications</b></p> <p><b>Make: KADA/ Proskit or any equivalent renowned manufacturer</b></p> <ul style="list-style-type: none"> <li>• Hot Air Rework and Solder Iron Station with temperature display in appropriate units should be capable to provide:</li> <li>• Must operate @ 220 Volts AC</li> <li>• Power consumption up to 270 watts or better/equivalent.</li> <li>• Air temperature capability: 100 to 480 degrees Centigrade or better</li> <li>• Standard iron tip AT-900M or equivalent/better</li> <li>• Additional iron tip quoted will be preferred.</li> <li>• Adjustable air flow, gentle wind or better</li> <li>• Auto cool down function.</li> <li>• Must be equipped with standard accessories.</li> <li>• Extra soldering wire, solder paste and jig etc. be quoted separately (if any)</li> </ul> <p><b>Note: Any other/ better/ above specifications would be preferred</b></p>	01		
10.	<p><b>Color Printer with standard accessories and following specifications:</b></p> <p><b>Make: HP/EPSON or any equivalent/ renowned manufacturer</b></p> <ul style="list-style-type: none"> <li>• The quoted Color Printer shall operate on Input AC 220 Volts @ 50 Hz &amp; shall be capable to provide high quality color &amp; black &amp; white prints.</li> <li>• Printer Technology: Liquid Ink or equivalent/ better.</li> <li>• Print Speed Black: Up to 33 ppm; Color up to 15 ppm or better/equivalent.</li> <li>• Functions: Print, Scan, Copy</li> <li>• Output Type: Both Color &amp; black &amp; white</li> <li>• Printing Paper Size: A4, A6, B5, Envelope or equivalent</li> <li>• Paper types supported: Plain paper, Matte Brochure Papers, Glossy Brochure Papers, or better/equivalent.</li> <li>• Connectivity: USB &amp; Wireless or any equivalent/better</li> <li>• Compatibility: Windows 10, Windows 8, Windows 7 &amp; equivalent Operating systems.</li> <li>• Spare liquid ink to be used be quoted separately.</li> </ul>	01		



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**TERM & CONDITIONS:**

1. Price to be quoted in Pak Rupees on (FOR) free home delivery basis.
2. As the equipment/ items to be procured are based on high tech technology therefore for competitive bidding single stage-two envelopes bidding procedure shall be adopted.
  - (i). the bid shall be comprised a single package containing two separate envelopes, containing separately **“TECHNICAL PROPOSAL”** and **“FINANCIAL PROPOSAL”**.
  - (ii). the envelope shall be marked as **“TECHNICAL PROPOSAL”** and **“FINANCIAL PROPOSAL”** in the bold, properly sealed and with legible letters to avoid any confusion.
  - (iii). initially the envelope marked with **“TECHNICAL PROPOSAL”** shall be opened.
  - (iv). the envelope marked with **“FINANCIAL PROPOSAL”** shall be retained in the custody of NIE without being opened.
  - (v). upon evaluation of technical proposals, NIE shall publically open the financial proposal of the technically accepted bids only. The financial proposal of the bids found technically rejected shall be returned un-opened to the respective firms.
3. The bids of the firm operating from their residential address and P.O. Box number will not be considered.
4. Tender number must be specified on the left corner of the bidding envelope.
5. The rates should be valid for at least **“90”** days from the date of tender opening.
6. The offered equipment/ items must be brand new of the original manufacturer and covered under normal warranty/guarantee with necessary back-up support.
7. The bid must be supported with necessary catalogue/ brochure indicating make, model detailed specification and country of origin of the offered equipment.
8. The scope of supplies includes supply of equipment, installation, testing and commissioning of equipment and if necessary training to NIE Personnel's.
9. The financial bid should reflect at sight the following costs separately for fair comparison purpose.
  - i. Unit Price of equipment.
  - ii. GST, if applicable.
10. Conditional/ ambiguous bids will not be entertained.
11. Earnest money @ 2% of quoted prices (Refundable) must be accompanied with tender in shape of a crossed bank draft/ pay order in favour of the Director General NIE.

12. E/M of the successful bidder will be refunded upon submission of prescribe performance/ bank guarantee to NIE and the same shall be released after satisfactory completion of warranty/ guarantee period of the supplied goods.
13. The successful bidder shall provide 5% performance/ bank Guarantee of the total order value of the order to NIE for satisfactory execution of the supply order.
14. The bid found to be lowest evaluated bid shall be accepted only either overall whole tender/items base or each item wise.
15. The estimated delivery/ completion period of supplies/ work must be specified in the quotation.
16. In case of any delay in supplies of ordered items, the successful bidder shall bound to inform NIE to prior to "15" days of the ending of last date of delivery, so that necessary approval regarding extension in delivery period may be obtained from Director General NIE otherwise at the time of payment to firm a penalty @ 2% per month of the total order value will be charged from the successful bidder without any notice.
17. Tender of all items may be awarded either to a single party or can be divided among different parties depending upon their professional capabilities and competitiveness in prices individually.
18. **No advance payment will be made.**
19. NTN and GST number must be mentioned on the quotation along with providing copy of its documentary evidence, failing which bid will not be considered.
20. Payment will be made on submission of the prescribed bill in duplicate through crossed cheque OR through Inland L/C after satisfactory completion of supply order and our acceptance thereof, which includes installation, testing, commissioning of the equipment and training etc. The bill presented on the letterhead of the firm will not be accepted for payment purpose.
21. As per Government Policy payment to the firm is subject to the registration of firm name in **Active Tax Payer List of FBR**, otherwise payment will be stopped till the appearance of vendor name in ATL of FBR.
22. Income Tax/ Sales Tax etc. will be deducted from bill as per Govt. Rules.
23. Last date for receipt of the tender in the Procurement Section of NIE is **January 25, 2021 up to 11:00 hours**. Technical proposals of the received firms shall be opened on the same day at **11:30 hours** in the presence of those who wish to be present. Tenders received late will not be considered in any case.
24. The Director General NIE reserves the right to accept or reject any or all tenders in part or whole, or change the quantity of tendered items as per provision of PPRA Rules.

**Muhammad Umair Habib**  
**Dy. Director Procurement**  
**NIE, Islamabad**  
**Ph: 051-9265009 (Ext: 217)**