

#### Ref. No.: CUJ/INT/DST-FTP/2016/01

## Dated 16<sup>th</sup> August 2016

#### Subject: Notice for Inviting Quotation for Supply of LCR Meter

Sealed Quotations without any erasures and overwriting are invited for Supply of LCR Meter as per following details:

S. No.	Required Item	Qty
01	LCR Meter	01

Quotation may be submitted keeping in view, the terms and conditions otherwise quotations will be rejected.

#### **Terms and Conditions**

- 1. The specifications for the items quoted should be explicit, clear and all available technical literature, catalogues and other data in support of the specifications of the items should be furnished along with the quotation. Quotation should be valid for a minimum period of 3 months from the due date.
- 2. The sealed quotation should reach on or before 20/09/2016 at 5:00 PM to Dr. Gajendra Prasad Singh, Principal Investigator, SERB-FAST TRACK, Centre for Nanotechnology, Central University of Jharkhand, Brambe-835205, Ranchi, Jharkhand. The envelope should be super scribed with name of the item to be supplied. Tender/ quotation should be sent through Post/ Courier/ By Hand.
- 3. **Bids will be opened on 26<sup>th</sup> September, 2016 at 11:30 A.M.** in the Office of the Head, Centre for Nanotechnology, Central University of Jharkhand, Brambe 835205, Ranchi in the presence of tenderers or their representatives who would like to be present.
- 4. The rate quoted should be inclusive of all packing, forwarding, commissioning & installation, sales tax, freight and insurance charges, etc. VAT or other duties and levies where legally liable and intended to be claimed should be distinctly shown separately in the quotation. VAT/CST Registration No. and validity date should be indicated.
- 5. Incomplete/Conditional/optional quotations will not be accepted.
- 6. Maximum delivery period will be 30 days from the date of issue of the work order.
- 7. The Tender Document for items will be Two Bid system consisting of **Technical Bid** (**Annexure I**) and **Price Bid** (**Annexure -II**). The Tender Document will be submitted item-wise in two separate sealed covers clearly mentioning on the envelope the details of items for which Bid is submitted.
- 8. The Tender Documents comprising of Price -Bid, Technical Bid and Earnest Money Deposit of 2% of the value of the equipment (**refundable**) in the form of Bank Draft in favour of "Central University of Jharkhand" payable at Ranchi kept in the separate envelope super-scribed with the name of the same. The Tender Document must be enclosed with Earnest Money Deposit otherwise the tender document will be rejected. All the documents must be enclosed in a bigger size envelope super-scribed with the tender number and item name
- 9. The Bidder must enclose point wise compliance of the technical specifications of each item.
- 10. The Central University of Jharkhand takes no responsibility for delay, loss or non-receipt of quotations/ documents sent by post and reserves the right to accept or reject the quotation without assigning any reason.
- 11. Corrections if any must be attested. All rates shall be indicated both in words as well as figures. Where there is a difference between the rates quoted in words and figures, rate quoted in words will prevail.
- 12. The University will not entertain requests for revision in prices once quoted for whatever reason after the tenders are opened during the period of contract.

- 13. Minimum One (01) years Guarantee / warranty period at site will start from the date of acceptance of stores in full and final quantity in satisfactory condition, after due inspection and/or successful installation and commissioning as applicable
- 14. Full payment will be made within 30 days of the receipt and acceptance after inspection of supplies at destination, quotations containing different payment terms are liable to be ignored.
- 15. All goods must be delivered at our university at Brambe, Ranchi (Centre for Nanotechnology) after confirmed order. The University will not be responsible for issuing any Road Permit.
- 16. Only Manufacturer/Authorized dealer/ firms of repute dealing in the items listed in the quotation having experience in sale and repair/ maintenance, need apply.
- 17. Only latest models/mentioned models of items need to be quoted.
- 18. Only those Manufacturers liable to participate having ISO 9001 and ISO 14001 certification.
- 19. All legal disputes shall be under the jurisdiction of Jharkhand High court, Ranchi.
- 20. The University reserves the right to accept or reject any Bid, without assigning any reason thereof. No correspondence in this regard will be entertained.
- 21. All the participating firms should attach supporting documents in favour of:
  - a) Have at least 5 years of experience in the field.
  - b) Have an annual turnover of at least Rs. 30 Lakh per annum for each of the last 3 years (i.e. 2013-14, 2014-15 & 2015-2016) (Agency should produce a certificate from their Audit Firm in respect of turnover for the mentioned period)
  - c) Be registered with Directorate of Industries or Small Scale Industries or any other appropriate authorities.
  - d) Have valid TIN Number for registration under VAT/CST
  - e) Have PAN for Income Tax. Supporting documents for Income Tax return for the last Two years (i.e. 2014-15, 2015-16).
  - f) Documents as proof in respect of Technical bid along with supporting documents.
  - g) Profile and Track Record of the agency. (3 years)
  - h) Copy of signed Balance Sheets of last three years.
  - i) Detailed terms & conditions regarding performance/ warranty/ bank guarantee/ Inspection/ LD/ penalty for delayed supplied will be elaborated in purchase order.
  - j) For proprietary items/ single manufacturers or Government manufacturers, proper certification in original is to be attached along with the Technical Bid.
- 22. Details specification of the equipment annexed as Annexure-III.
- 23. Bidders can supply all the items or selected items as per their convenience. But, EMD should be provided separately for separate item.
- 24. University reserves the right to issue the purchase order to a single firm or may be divide it into more than one firm.

#### Gajendra Prasad Singh

#### (Principal Investigator, SERB-FASTTRACK Project)

#### Annexure -I

## TECHNICAL BID

The tenderer must submit the following information against every serial number as under:-

# **I.** General Particulars to be provided by the Tenderer (The bidder should provide the following particulars along with relevant supporting documentation)

1. Name of the Bidder/Partner/Firm:	
2. Mailing address with contact Number:	
4. (i) Tel. No.:	(ii) Mobile No:
(iii) Fax No.:	(iv) E-mail address:
5. Whether the firm registered firm (Yes/No)	), if Yes please mentioned registration no
(i) VAT No.:(ii) TIN Nu	ımber:(iii)PAN No.:
6. Name and designation of the person	authorized to make commitments to CUJ, Brambe,
Ranchi	
8. Whether the firm has enclosed the Bank D	Draft/Pay Order/ Banker's Cheque as EMD
9. Whether the Firm/Agency has signed each	n and every page of Tender/NIT (Yes/No)
10. Any other information, if necessary	
Place:	Name:
Date:	Business Address:

Signature of Bidder: ...... Seal of the Bidder:

## PRICE-BID

## **DETAILS OF ITEMS**

01       LCR Meter       01         LCR meter Specification       •       LCR Meter         •       LCR Meter       •         •       Measurement frequency: 20 Hz or lower to 5 MHz or higher       •         •       Measurement range: 100 mΩ to 100 MΩ or better       •         •       Frequency resolution:10 mHz or better       •         •       Interfaces: EXT. I/O( HANDLER) ,USB, USB flash drive, LAN, RS-232C, BCD, software for data acquisition and interface       •         •       Suitable Test Fixture or measurement cable       •         •       Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C       •         •       The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS with 30 min backup	S. No.	Description of Item	Qty	Rate Quoted (in Rs.)
<ul> <li>LCR Meter</li> <li>Measurement frequency: 20 Hz or lower to 5 MHz or higher</li> <li>Measurement range: 100 mΩ to 100 MΩ or better</li> <li>Frequency resolution:10 mHz or better</li> <li>Interfaces: EXT. I/O( HANDLER) ,USB, USB flash drive, LAN, RS-232C, BCD, software for data acquisition and interface</li> <li>Suitable Test Fixture or measurement cable</li> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>	01	LCR Meter	01	
<ul> <li>Measurement frequency: 20 Hz or lower to 5 MHz or higher</li> <li>Measurement range: 100 mΩ to 100 MΩ or better</li> <li>Frequency resolution:10 mHz or better</li> <li>Interfaces: EXT. I/O( HANDLER) ,USB, USB flash drive, LAN, RS-232C, BCD, software for data acquisition and interface</li> <li>Suitable Test Fixture or measurement cable</li> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>		LCR meter Specification		
<ul> <li>MHz or higher</li> <li>Measurement range: 100 mΩ to 100 MΩ or better</li> <li>Frequency resolution:10 mHz or better</li> <li>Interfaces: EXT. I/O( HANDLER) ,USB, USB flash drive, LAN, RS-232C, BCD, software for data acquisition and interface</li> <li>Suitable Test Fixture or measurement cable</li> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>		LCR Meter		
<ul> <li>Measurement range: 100 mΩ to 100 MΩ or better</li> <li>Frequency resolution:10 mHz or better</li> <li>Interfaces: EXT. I/O( HANDLER) ,USB, USB flash drive, LAN, RS-232C, BCD, software for data acquisition and interface</li> <li>Suitable Test Fixture or measurement cable</li> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>		• Measurement frequency: 20 Hz or lower to 5		
<ul> <li>better</li> <li>Frequency resolution: 10 mHz or better</li> <li>Interfaces: EXT. I/O( HANDLER) ,USB, USB flash drive, LAN, RS-232C, BCD, software for data acquisition and interface</li> <li>Suitable Test Fixture or measurement cable</li> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>		MHz or higher		
<ul> <li>Frequency resolution:10 mHz or better</li> <li>Interfaces: EXT. I/O( HANDLER) ,USB, USB flash drive, LAN, RS-232C, BCD, software for data acquisition and interface</li> <li>Suitable Test Fixture or measurement cable</li> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>		• Measurement range: $100 \text{ m}\Omega$ to $100 \text{ M}\Omega$ or		
<ul> <li>Interfaces: EXT. I/O( HANDLER) ,USB, USB flash drive, LAN, RS-232C, BCD, software for data acquisition and interface</li> <li>Suitable Test Fixture or measurement cable</li> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>		better		
<ul> <li>USB flash drive, LAN, RS-232C, BCD, software for data acquisition and interface</li> <li>Suitable Test Fixture or measurement cable</li> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>		• Frequency resolution:10 mHz or better		
<ul> <li>software for data acquisition and interface</li> <li>Suitable Test Fixture or measurement cable</li> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>				
<ul> <li>Suitable Test Fixture or measurement cable</li> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>				
<ul> <li>Temperature test set up with sample holder and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>		-		
<ul> <li>and Furnace for Resistivity test upto 600°C</li> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>				
<ul> <li>The LCR meter shall be interfaced with desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS</li> </ul>		1 1 1		
desktop computer or Notebook (14"). Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS		• •		
Desktop specification: Processor Core i3 or above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18''TFT/LED or higher or Notebook. 1 KVA off-line UPS				
above, Window 7 or above, RAM 4GB, HDD 500GB, DVD RW, Display 18''TFT/LED or higher or Notebook. 1 KVA off-line UPS				
500GB, DVD RW, Display 18"TFT/LED or higher or Notebook. 1 KVA off-line UPS		1 1		
higher or Notebook. 1 KVA off-line UPS				
rr		-		
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Place:	Name:
Date:	Business Address:
	Signature of Bidder:
	Seal of the Bidder:

### Annexure-III

# List of Instrument with Specification

Sl. No.		Required Items	Qty.
1.	LCR		01.
	LCR Meter includes		
	(I) (II)	LCR Meter and measurement set up Computer and software	
	(I)	LCR meter Specification (01 No.)	
		Measurement mode :LCR mode, Continuous measurement mode	
		Measurement frequency: 20 Hz or lower to 5 MHz or higher	
		Measurement parameters: Z, Y, $\theta$ , X, G, B, Q, Rdc (DC resistance), Rs	
		(ESR), Rp, Ls, Lp, Cs, Cp, D (tan $\delta$ ), $\sigma$ , $\varepsilon$	
	d.	Measurement range: 100 m $\Omega$ to 100 M $\Omega$ or better in at least 10 ranges	
		(All parameters are determined according to Z)	
	e.	Measurement accuracy: $Z \pm 0.1\%$ or better	
	f.	Frequency resolution:10 mHz or better	
	g.	Interfaces: EXT. I/O( HANDLER) ,USB, USB flash drive, LAN, RS-	
	_	232C, BCD, software for data acquisition and interface	
	h.	Power supply: 220 V AC, 50 Hz	
	i.	Suitable Test Fixture or measurement cable should be provided.	
	j.	Temperature test set up with sample holder (01 No.): Furnace for using	
		of Resistivety test upto 600°C along with stainless steel sample holder	
		inserted with K type Thermocouple, Temperature Control PID	
		Controller of reputed make withAccuracy +/- 3°C. Power control -	
		Thyristorised fully automatic. Insulation Alumina based. Supply	
		voltage: 230 V AC, 50 Hz.	
	(II	Computer and Software (01 No.)	
	a.	The LCR meter shall be interfaced with desktop computer or Notebook	
		(14"). Specification: Processor Core i3 or above, Window 7 or above,	
		RAM 4GB, HDD 500GB, DVD RW, Display 18"TFT/LED or higher.	
		1 KVA off-line UPS having 30 min backup with desktop	