



UNIVERSITY OF CALCUTTA
Centre for Research in Nanoscience and Nanotechnology
JD-2, Sector-III, Salt Lake City
Kolkata- 700098

NOTICE INVITING TENDER

Sealed Quotations are invited from reputed suppliers or manufacture for the following works for the room for XRD System in Clean Room Block at CRNN.

1	N.I.T No	Dir/171/XRD/Room/NIT/CRNN(2016) Date: 04.03.2016
2	Name of Work	Partition, flooring, false ceiling and electrical work for XRD System room at Clean Room block of Technology Campus (Acharya Prafulla Chandra Roy Siksha Prangan), Salt Lake.
3	Time of completion	Within 1 month from issuing Order.
4	Eligibility Criteria	1) Document in support of valid Trade license's /PAN card/VAT. 2) Credential for satisfactory completion of similar nature of high profile job within the last three financial year. (3) The agencies must apply with credential for the similar nature carpentry / interior decoration work in last three financial years.
5	Technical Specification	Appendix 5 Appendix 6 Appendix 7
6	Last date of Application for participating in bid	29/07/2016 (up to 2.00 PM)
7	Last date of Collection of Quotation Papers :-	02/08/2016 (up to 2.00 PM)
8	Last date of dropping of Quotation :-	05/08/2016 (up to 2.00 PM)
9	Date of opening of Quotation	-

For details enquiry & further correspondence feel free to contract CRNN office at any working day between 11.00 am to 4.00pm.

N. B. The undersigned reserves the right to reject any or all tenders/quotation without assigning any reason what so ever.

Director, CRNN

APPENDIX-5

The electrical work/power distribution requirement for the installation of X'Pert Powder X-Ray Diffractometer (XRD) from M/s. Panaytical, The Netherlands at CRNN campus, Saltlake:

1. One dedicated copper plate earthing is required for XRD instrument, its computer and peripherals only. Grounding resistance should be less than 100 Ohm. Chiller and UPS will be connected with normal electrical earthing.
2. UPS (10 KVA) is of *3 phase input* and *single phase output*. Input to UPS should be given by 40 Amp 4 pole MCB.
3. Output of UPS (Single phase/double pole) should be divided in three MCB:
 - a) 40 Amp double pole. The output of this MCB should be divided into two parts:
 - i. Input for XRD power supply.
 - ii. Input supply to 5 nos. 5-15 amp/230 V plug sockets: This is required for the input power of the computer and peripherals.
 - b) 20 Amp double pole – to be used for chiller pump supply.
 - c) 16 Amp Single phase 2-pole for Emergency room lighting.
4. Chiller should be connected with one 20 Amp double pole MCB (Single phase supply coming from UPS) and one 10 Amp 4 pole MCB (3 phase supply coming from raw power).

APPENDIX-6

The electrical work/power distribution requirement for the installation of SMARTLAB 9KW X-Ray Diffractometer (XRD), from RIGAKU (Japan) at CRNN campus, Saltlake:

1. One dedicated copper plate earthing is required for XRD instrument, its computer and peripherals only. Grounding resistance should be less than 100 Ohm. Chiller and UPS will be connected with normal electrical earthing.
2. UPS (60KVA) is of *3 phase input and three phase output*. Input to UPS should be given by 125Amp 4 pole MCB.
3. Output of UPS (Three phase 100 Amp, 4pole) should be divided in four MCB:
 - a) 63 Amp, 4 pole, 3 Φ to Step down transformer. The output of the transformer will go to a 100Amp 4pole, 3 Φ MCB and then to the XRD System
 - b) 32 Amp 4 pole 3 Φ to Chiller
 - c) 16 Amp Single phase 2-pole to an extension board for computer and other peripherals (3 x 5A and 1 x 15 A plug)
 - d) 16 Amp Single phase 2-pole for Emergency room lighting.
4. Step Down Transformer
 - Capacity : 40KVA, 3 Φ , 50 Hz AC
 - Input supply :380 V to 420 V, 3 Φ
 - Output Supply:200 V, 3 Φ
 - Configuration :Star to Delta connection
 - Rotary switch with Voltmeter for viewing Input and Output voltages

APPENDIX-7

1. Three A/C rooms with proper humidity and dust control should be created.
 - a) To avoid damp wall paneling with ACP sheet should be provided. Appropriate vinyl flooring should be provided.
 - b) Falls ceiling with industrial style ceiling lights with some emergency lighting should also be provided.
 - c) Each room should have 2 x 2 ton A/C systems.
2. Furniture for sitting of operator, storage of spare parts and consumables, additional sitting arrangements for users should also be provided in two of the rooms.
3. One room with dimension 13 x 20 feet for housing X'Pert Powder Ray Diffractometer from M/s. Panaytical, The Netherlands. Access control system should be provided in the room.
4. One room with dimension 13 x 20 feet for housing SMARTLAB 9KW X-Ray Diffractometer (XRD) from RIGAKU (Japan). Access control system should be provided in the room.
5. One room with dimension 13 x 25 feet for housing utilities (2 UPSs and 2 Chillers). Appropriate ducting should be made to carry the exhaust of the chiller out of the room.
6. Specification of partition material, flooring, and false ceiling should be as *TEM Sample Preparation Room* at CRNN, Clean Room block. For site visit please contact CRNN office on office hour.
7. Furniture (rust free, compatible with clean environment)
 - (a) Four 3x5 feet table (with lockable drawers)
 - (b) Six chairs (high back, swivel, office compatible)
 - (c) Six stackable stools.
 - (d) Two Office cabinets, each with four shelves, steel construction with powder coating. Each shelf should be with individual top-hinged viewable (glass) and lockable doors.