## Indian Institute of Technology Kanpur

## **Samtel Centre for Display Technologies**

February 1<sup>st</sup>, 2012.

Enquiry number: SP-SCDT-2012-01

Sealed Quotations are invited from interested suppliers for the supply of following, "Cleanroom Material" items as per specification given below.

1. <b>S/N</b>	Items and description/features	Quantity
DIT	items and description/readities	<b>C</b>
1	Ceiling suspended filtration system unit –	23
	Size: 1340 X 1250 X 500 [w x d x h] mm	
	MOC: MS powder coated	
	Minipleat HEPA cfm: 1400 cfm each.	
	Each filtration system unit comprises	
	(A) HEPA - Mini pleat, MOC: Aluminum, Type: Box	
	Media: micro fiber glass, Efficiency: 99.997% down to 0.3μ, Make:	
	Lydal/Camphil/Equivalent	
	(B) <u>Prefilters of appropriate numbers - HDPE</u> washable cleanable media, MOC: GI	
	or Al, Type: Flange, Efficiency: 90% down to 5 μ	
	(C) <u>Electric Motor</u> Electric motor, <sup>1</sup> / <sub>4</sub> HP ,50 hz, 1.3 amp	
	Make: Crompton/GE/Empire or equivalent, qty: 2	
	(D) Return air risers- Projected or Non-projected:	
	. MOC: GI powder coated, Gauge: 20/22/24, qty: 01 nos	
	(E) Connecting duct:	
	MOC:GI, Gauge: 20/22/24, qty: 01 nos	
	(F) Electrical control panels : MCB tripper, connected in series to all filtration unit,	
	lights etc.	
2	Pressure module with A/C & Stand	6
	MOC: MS powder coated, 18 gauge, Class: 100, size 750 x 750 x 1000 mm, capacity	
	500 CFM	
	(A) HEPA filter - with Aluminum casing, Type: box	
	Eff 99.97% down to 0.3 μ,size: 610 x 610 x 150 mm suitable	
	(B) Prefilter - Eff 95 % down to 10 μ, MOC: GI	
	(C) Motor blower assembly - ¼ HP, 1.3 amp electric motor,	
	Make: GE/Crompton/Equivalent	
	FRP casing with Aluminum impeller, double ended shaft, 230 v, single phase, 50 hz	
	(D) A/C - AC with condensing coil 18" X 12"X 3 ROW & outdoor unit	
	COMPRESSOR, Make: Kirsoskar Coplant/Equivalent, Qty -1	
3	Air shower (with side blower) for two-person entry	3
	MOC: MS powder coated, 18 gauge. Class: 100	
	Size: Internal 800 x 900 x 2000 mm, External 1700 x 1000 x 2190 mm	

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	Electric supply: 415 V, 3ø phase 50 hz  (A) HEPA filter - Eff: 99.97% down to 0.3 μ, casing of aluminium  (B) Pre-filter - Eff: 90% down to 10 μ, 5 PLY  (C) Motor blower assembly – 1 HP, 2800 RPM  Make:Crompton/HINDUSTAN/EMPIRE OR Equivalent make with FRP casing, 7" x 4 ½" dia impeller GI,single shaft FOOT MOUNTED type motor.  (D) Air jet Velocity – 25-30 m/s  (E) Noise level - 70 db or less from 1 m  (F) Other features: (i) 20 W fluroscent tube, Phillips make or equivalent 01nos. (ii) Hinge type door with half glass,(iii) Hydraulic door closer will be provided (iv) Electro-magnetic interlocking with emergency release switch (v) At a time one door will be open.	
4	<u>Air curtains</u>	4
	MOC: MS/CRCA sheet metal powder coated, 18 gauge  (A) Motor blower assembly -1/2HP OR ½ HP or higher, with self lubricated oil bushing, 230 v.single phase, 50hz,     Make: Crompton/Equivalent  (B) Air jet Velocity - 12-15 m/s  (C) Noise level - 65 db or less from 1 m  (D) Size - (i) 5ft - 1 qty  (ii) 3 ft - 3 qty	
5	Garment cabinet-	2
	MOC: MS powder coated, 18 gauge, class: standard Size: 6' x 3'x 1.8' [ H X W X D] Electric supply: 230 v, single phase, 50hz. Features: UV tube light,15 W Philips or equivalent make, HING type DOUBLE SKIN door, Caster wheel to be provided, Hanger bar to be provided	
6	Clean room light	53
	2 x 36 w CFL bottom opening clean room fitting with MS bottom frame, non yellowing acrylic cover & electronic ballast, Make: Phillips/Crompton/Hawell/Opasis/kumar industries	
7	Magnehelic gauge-	3
	Range:0-25mm water gauge, Make: Sensecon/Drawer	
8	Split AC	22
	2 TR, Make –LG/equivalent.	
9	Door Interlocking System	
	3 door in series with one control panel	1
	1 door with one control panel (note – total number of 4 doors needed)	1
<u> </u>	1 \ //	1

	The Door Interlocking System includes the following components:  1) Micro-controller based controller with Power Supply →1 No. Per System  2) Feather touch Keyboard (about 60mmx40mm) → 2 Nos. per door.  3)12 VDC Electro Magnetic Lock, with built in Magnetic Sensor, 1 No. per door.  4) Multi core Telephone Cable 0.5 mm² for Sensor, Keyboard & EM Lock & 3 Core Cable 0.75 mm² for Input to Controller	
10	Pass box	
	Size: 2x2x2 feet	1
	Static type pass box with electro magnet interlocking of door provided for the transfer of materials / small objective between clean room and adjacent areas.	
11	<u>Panels</u>	
	A. G. I. Flush Type Door	
	Size: 2.00 m x 2.10 m (LxH)	2
	Aluminium shutter frame 38.10mm x 38.10mm x1.2mm & leg Frame 49.50mm 63.50mm x 1.70mm  Powder coated & Both side 0.80 mm pre-coated G.I. Sheet PUF insulated. S.S. hinges 4Nos, Lock, Nylon Door Seal, S.S. "D" Type Handle 8" view glass 4mm both side.	
	B Flush Type Modular Partition	
	Size: 15.540 m x 2.440 m	2
	15.000 m x 2.440 m	$\frac{2}{2}$
	6.000 m x 2.440 m	$\frac{1}{2}$
	2.440 m x 2.440 m	1
	4.550 m x 2.440 m	1
	5.440 m x 2.440 m	1
	63mm PUF insulated partition & Both side 0.80mm Per-coated G.I. Sheet.	
	C. Window	
	Size:	
	1 m x 1 m	8
	with 4 mm glass flushed on both sides	
	D. Door	
	Size:	
	0.750 m x 2.100 m	3
	E. False Ceiling	
	Size:	
	5.000 m x 15.540 m	1
	25 mm thick false ceiling PUF insulated & Both side 0.80mm Per-coated G.I. Sheet.	

Mention the compliance status of each of the above items in a tabular form.

- 2. Warranty mention the warranty
- 3. Installation, Testing and Validation mention the testing and validation schedule over all seasons.

Note that those providing longer warranty, better after sales service and support, and more rigorous testing procedure, with written evidence will be given preference.

## Terms and conditions

- 1. Only those supplying ALL of the items shall be considered
- 2. Quotation should be valid for 90 days

Please send competitive quotations for the FOB/FOR prices in a sealed envelopes to the address provided below by February 10, 2012.

Dr. Siddhartha Panda Room No. 305 Samtel Centre for Display Technologies IIT Kanpur Kanpur-208016 Phone: