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Indian Institute of Technology Kanpur
National Centre for Flexible Electronics

Enquiry number: SCDT/FlexE/2017-18/17 **Date: 10/10/2017**

Opening Date: 12/09/2017

Closing Date : 28/09/2017 Extended till 10/10/2017 Re-Extended till 12/10/2017

REVISED: Please read Jindal SS 304A as Jindal SS 304L

Subject: Purchase of **CLEAN ROOM EQUIPMENT STATION (fumehood & workstation)**

Indian Institute of Technology, Kanpur "An Institute of national importance", invites sealed two part bids from reputed manufacturer/fabricator for installation of **CLEAN ROOM EQUIPMENT STATION (fume hood & workstation)**:

Note- All interested vendors are requested to submit "techno-commercial bids" together in separately sealed envelopes, containing technical bid (Envelope – I) along with the documentary support of mandatory criteria of technical qualifications (as mentioned below) and Commercial bid (Envelope – II) placed in a larger sealed envelope super-scribing with reference number (Tender Inquiry No.).

(Please find the drawing attached/given to understand the requirement/specification as per tender inquiry)

Technical specification for evaluation of technical bids is provided in this document subjected to following mandatory criteria (backed by documentary support)

1. Vendor should have his own in-house polypropylene fumehood manufacturing facility and cleanroom compatible Stainless steel workstation fabrication facility and doing manufacturing from last 5 years.
2. Company turnover of value above 3 Cr/yr in last three years will be preferred.
3. Bidders must have done turnkey projects of (INR) one 50 lakh or two 25 lakh turnkey projects and above value in past three years (document in support with work completion certificate must be attached).
4. The bidder need to submit work completion certificate for at-least one work of similar nature having a magnitude of similar or higher value, preferably project from the semiconductor and/or pharmaceutical industries as well as premium institution such as IITs/IISER/PSUs and/or central universities.
5. Vendor must be able to provide stainless steel quality certificate for the materials used for work station (SS304A and SS316) from the authorized certifying agencies

S1: General technical Specifications of Fume hood

Description	Polypropylene Fume Hood
Construction	Fumehood shall be constructed from natural white polypropylene sheets minimum of 12 mm thick, all the joints shall be seamless welded. For further strengthening fumehood, suitable polypropylene C-Channels be incorporated.

	All materials have been selected for application in the most demanding of conditions and are suitable for the class 1000 cleanroom applications.
Level adjustable legs	Fumehood shall have minimum 5 level adjustable legs to adjust the fumehood by ±10 mm
Visor/Sash	An operator safety visor made of 6mm thick transparent acrylic/Polycarbonate sheet with PP frame around, which is fixed in front of the bench and can be opened/closed based on the operator's requirement.
Work top	Worktop shall be made of 12mm thick PP sheet with perforation and chamfered, with suitable cut out for housing sink, which can be removed for cleaning the sink base. Appropriate supporting ribs to avoid deflection will be provided at the bottom of the worktop. Worktop spills, chemical spills and spent DI water will drain to the plenum below and from there to a dedicated main spigot to station rear.
Plumbing	Water plumbing shall be of dia. 20mm or thicker PVC/PP pipe work and include standard inlet and outlet at rear of the station to minimize the dead legs within the pipe work exclusive pipe with front fascia mounted valve for controlling the water is provided. Polypropylene drain of size 40 mm MTA connection will be provided at bottom of the sink base for draining. The drain end connection of the Wet Chemical station should be connected to your existing main drain.
Gooseneck	Gooseneck shall be made of Polypropylene with control valve for raw/DI water supply.
Lights (Havells/Legrand/ Equivalent)	2 number of LED 28W will be provided for illumination, material of construction shall be PVC.
Chemical storage trolley	The station will be provided with 2 nos. of storage trollies for storing chemicals under the sink base, both the trollies on casters for movement. Both the trollies will have exhaust ports connected internally to fumehood main exhaust.
Electrical (Havells/Legrand/ Equivalent)	For circuit protection miniature circuit breakers (MCB) will be provided. There will be 15amps socket and switches provided on the front side of chemical station.
General usage Sink	Sink fabricated from 10mm thick polypropylene with inner dimension of 250mm x 250mm x 200mm deep with a 20mm or thicker drain out let. The sink will be placed such that one can remove for servicing etc., without affecting the other process.
Dedicated sink	Dedicated sinks for rinsing are made of 10 mm thick Polypropylene with inner dimension 0f 250 x 250 x 200mm, pipe line connected to collection tanks. Collection tanks are made of polypropylene.
Nitrogen gun/Drying gun	N2 spray guns are constructed of virgin PTFE material, can deliver maximum anti-corrosion protection wherever extreme chemical environments are used in

	the vicinity of nitrogen dispensing or drying. Nitrogen gun is manufactured of the durable materials to resist acid attacks. Standard nitrogen hand spray gun with 1/4"FNPT Inlet thread, filter housing with disposable filter. (Max. operating pressure 5 Bar.) (Media Temperature Range: 10ºC - 50ºC) Make Terra universal/Entegris or equivalent
DI water spray/Rinsing gun (optional item)	DI guns are constructed of virgin PTFE material, can deliver maximum anti-corrosion protection wherever extreme chemical environments are used in the vicinity of DI water spraying or rinsing. Nitrogen gun is manufactured of the durable materials to resist acid attacks. Standard DI water hand spray gun with 1/4"FNPT Inlet thread, filter housing with disposable filter. (Max. operating pressure 5 Bar.) (Media Temperature Range: 10ºc - 50ºc) Make Terra universal/Entegris or equivalent
CDA Gun	¼" CDA Gun Made of Aluminium will be supplied along with PU tube.
Magnehelic gauge	Magnehelic gauge of 50mm of water column capacity to measure the differential pressure.
Exhaust port	Unique exhaust port design ensures that the fumes will be exhausted smoothly without any turbulence at the exhaust port. Also it ensures low noise level.
Special Note	**Number of units and any deviation in the specification will be mentioned in the labwise BOQ**

S2: General technical specifications of Jindal SS304A work station

Description	Stainless steel work station with granite worktop
Construction	Frame construction: 40 x 40 x 2.0 mm thick or thicker MOC : Jindal SS304A or equivalent Level adjustable feet's for legs. Finish: Matt finish. Load bearing capacity : 500 kg Cabinet Module MOC: Jindal SS304A or equivalent Cabinet Module: Dimensions overall 500 mm L x 600 mm W x 700 mm height. Cabinet module shall be detachable type. Cabinet shall have 2 nos sliding drawers and 1 hinged door Finish: matt finish. Work top: Work shall be made of 20 mm or thicker black granite, all the edges should be chamfered. Load bearing capacity: 500 kg.

S3: General technical specifications of Safety shower & Eye wash

Safety Shower & Eye wash	MOC: Jindal SS316A, pipes Sch. 40. Eye washer: with push plate. Shower head with pull rod. Shower head bowl with perforation.

S4: Polypropylene Chemical leaning/washing station

Overall Dimensions	1) Dimensions(1200 mm L X 900mm D x 1800 mm H) 2) Dimensions(1520 mm L X 900mm D x 1800 mm H)
Construction	Chemical cleaning station is constructed from natural white polypropylene laminated sheet of thickness 10mm with adjustable levelling feet's. For further strengthening fumehood, suitable polypropylene C-Channels be incorporated. All materials have been selected for application in the most demanding of conditions and are suitable for the cleanroom application.
Work top	Worktop will be made of 10mm thick PP sheet with perforation and chamfered with suitable cut out for housing sink, which can be removed for cleaning the sink base. Appropriate supporting ribs to avoid deflection will be provided at the bottom of the worktop. Worktop spills, chemical spills and spent DI water will drain to the plenum below and from there to a dedicated main spigot to station rear.
Plumbing	Water plumbing will be of dia. 20mm PVC/PP pipe work and include standard inlet and outlet at rear of the station to minimize the dead legs within the pipe work exclusive pipe with front fascia mounted valve for controlling the water is provided. Polypropylene drain of size 40 mm MTA connection will be provided at bottom of the sink base for draining. The drain end connection of the Wet Chemical station should be connected to your existing main drain.
Gooseneck	Gooseneck is made of Polypropylene with control valve for water connection
Bottom storage cabinet	The station will be provided with 2 nos. of storage shelves for storing materials under the sink base which will have wheels for movement.
Sink	

	One number of sink fabricated from 10mm thick polypropylene with inner dimension of 250mm x 250mm x 200mm deep with a 20mm drain out let. The sink will be placed such that one can remove for servicing etc., without affecting the other process.
Peg board	One number polypropylene Peg board will be supplied for glassware drying.
Nitrogen gun/Drying gun	N2 spray guns are constructed of virgin PTFE material, can deliver maximum anti-corrosion protection wherever extreme chemical environments are used in the vicinity of nitrogen dispensing or drying. Nitrogen gun is manufactured of the durable materials to resist acid attacks. Standard nitrogen hand spray gun with 1/4"FNPT Inlet thread, filter housing with disposable filter. (Max. operating pressure 5 Bar.) (Media Temperature Range: 10^{o}c - 50^{o}c) Make Terra universal/Entegris or equivalent
DI water spray/Rinsing gun (optional item)	DI guns are constructed of virgin PTFE material, can deliver maximum anti-corrosion protection wherever extreme chemical environments are used in the vicinity of DI water spraying or rinsing. Nitrogen gun is manufactured of the durable materials to resist acid attacks. Standard DI water hand spray gun with 1/4"FNPT Inlet thread, filter housing with disposable filter. (Max. operating pressure 5 Bar.) (Media Temperature Range: 10^{o}c - 50^{o}c) Make Terra universal/Entegris or equivalent
CDA Gun	¼" CDA Gun Made of Aluminium will be supplied along with PU tube.

Lab wise BOQ

1. Yellow room

1.1 Polypropylene Fumehood (General technical specification is as mentioned above S1, Refer to drawing D1.1)

- Polypropylene fumehood- Quantity 1 nos.
- Dimensions – 1500mm L x 1100 mm D x 2350 mm H
- Facilities required- N2 connection with Teflon gun, CDA connection with Al gun, DI water connection with Teflon gun, raw water connection with goose neck.
- General usage sink - 1 nos.
- 5 L capacity collection tank.
- Electrical power points: 5/15 Amps- 4 nos.

1.2 Solvent bin with exhaust port

- Qty 2 nos.
- Construction : Jindal SS304 A 1.2 mm thick sheet
- Dimensions: 300mm dia x 600 mm H

1.3 Work Station with granite top(General specification as mentioned above S2)

1) Workstation with under table cabinet and granite worktop
   Dimensions: 1500mm L x 1000 mm D x800 mm H- Qty.-2 nos. (MOC Jindal SS316A or equivalent)
   Under table detachable cubical 500mmWx600mmDx700mmH ((MOC Jindal SS316A or equivalent1.2mm thick)

2) Workstation with under table cabinet and granite worktop
   Dimensions: 2500mm L x 900 mm D x800 mm H- Qty.-1 nos. (MOC Jindal SS316A or equivalent)
   Under table detachable cubical 500mmWx600mmDx700mmH (MOC Jindal SS316A or equivalent1.2mm thick) Qty 2

3) Workstation with under table cabinet and granite worktop
   Dimensions: 2400mm L x 900 mm D x800 mm H- Qty.-1 nos. (MOC Jindal SS316A or equivalent)
   Under table detachable cubical 500mmWx600mmDx700mmH (MOC Jindal SS316A or equivalent 1.2mm thick) Qty-2

1.4 Arm exhaust

- MOC: Polypropylene
- Pipe dia.- 72mm
- Polypropylene grain dome dia. : 360 mm
- Qty: 2 nos.

2.0 Wet processing

2.1 Polypropylene Fumehood with four stage cleaning station such as soap, sonication, bath, water cleaning and one sink (General technical specification is as mentioned above S1, Refer to drawing D 2.1)

- Polypropylene fumehood- Qty: 1 no.
- Dimensions – 1800mm L x 1100 mm D x 2350 mm H
- Facilities required- N2 connection with Teflon gun, CDA connection with Al gun, DI water connection with Teflon gun, Raw water connection with goose neck.
- General usage sink. 1 nos(Refer to S1 for dimension)
- Dedicated sink – 4 nos (Refer to S1 for dimension)
- Electrical power points: 5/15 Amps- 4 nos.

2.2 Polypropylene Fumehood for Acids etching (General technical specification is as mentioned above S1, Refer to drawing D 2.2)

- Polypropylene fumehood- Qty: 1 nos.
- Dimensions – 1800mm L x 1100 mm D x 2350 mm H
- Facilities required- N2 connection with Teflon gun, CDA connection with Al gun, DI water connection with Teflon gun, raw water connection with goose neck.

- General usage sink.- 1 nos (Refer to S1 for dimension)
- Dedicated sinks for cleaning – 4 nos. (Refer to S1 for dimension)
- Electrical power points: 5/15 Amps- 4 nos.

2.3 Polypropylene Fumehood for solvents (General technical specification is as mentioned above S1, Refer to drawing D 2.3)

- Polypropylene fumehood- Qty: 2 nos.
- Dimensions – 1800mm L x 1100 mm D x 2350 mm H
- Facilities required- N2 connection with Teflon gun, CDA connection with Al gun.
- General usage sink. - 1 no.
- 5L Collection tank - 1 no.
- Electrical power points: 5/15 Amps- 4 nos.
- Storage under the fumehood ((Refer to S1 for dimension))

2.4 Eye wash & Emergency Shower(specification is as mentioned above as S3)

- MOC: SS316
- Qty: 1 nos.

2.5 Washing station with storage rack and provision for placing Milli Q DI water system (General technical specification is as mentioned above S4, Refer to drawing D 2.5)

- MOC: polypropylene Qty: 1no.
- Dimensions: 1200 mm L x 900 mm D x 1800 mm H
- Facilities required- N2 connection with Teflon gun, CDA connection with Al gun, DI water connection with Teflon gun, Raw water connection with goose neck.
- General usage sink. 1 nos.
- Electrical power points: 5/15 Amps- 2 nos.
- Storage under the sink
- Overhead shelf to place Mili Q DI water system
- Storage cabinet

2.6 Washing station with storage rack and peg board (General technical specification is as mentioned above S4, Refer to drawing D 2.6)

- MOC: polypropylene Qty 1nos
- Dimensions: 1200 mm L x 900 mm D x 1800 mm H
- Facilities required- N2 connection with Teflon gun, CDA connection with Al gun, DI water connection with Teflon gun, raw water connection with goose neck.
- General usage sink. 1 nos.
- Storage under the sink
- Peg board on back of sink
- Storage cabinet

2.7 Solvent bin with exhaust port

- Construction : (MOC Jindal SS316A or equivalent) 1.2 mm thick
- Dimensions: 300mm dia x 600 mm H
- Qty: 2 nos.

2.8 Dust bin Qty 2nos

- MOC : polypropylene
- Dimensions : 500mm x 500mm x500 mm with closure

2.9 Work Station (General specification as mentioned above S2)

1. Workstation with under table cabinet and granite worktop
   Dimensions: 1500mm L x 900 mm D x800 mm H- Qty: 4 nos. (MOC Jindal SS316A or equivalent)
   Under table detachable cubical 500mmWx600mmDx700mmH (MOC Jindal SS304A or equivalent 1.2mm thick sheet)

2. Work station with under table cabinet and granite worktop Dimensions: 2000mm L x 900 mm D x800 mm H- Qty.-1 nos. (MOC Jindal SS316A or equivalent)
   Under table detachable cubical 500mmWx600mmDx700mmH (MOC Jindal SS316A or equivalent 1.2mm thick sheet)

2.10 Arm exhaust Qty-2nos

- MOC: Polypropylene
- Pipe dia.- 72mm
- Polypropylene grain dome dia. : 360 mm

3.0 Sensors Lab

3.1 Work Station (General specification as mentioned above S2)

1) Work station with under table cabinet and granite worktop
   Dimensions: 1500mm L x 900 mm D x800 mm H- Qty.-7 nos. (MOC Jindal SS316A or equivalent)
   Under table detachable cubical 500mmWx600mmDx700mmH (MOC Jindal SS316A or equivalent 1.2mm thick sheet) Qty: 7 nos.

2) Worksation with under table cabinet and granite worktop with PP sink (250mm x 250mm x 200 mm). Station dimensions: 1500mm L x 900 mm D x800 mm H- Qty.-1 nos. (MOC Jindal SS316A or equivalent) Peg board, N2 connection with Teflon gun, CDA connection with Al gun, DI water connection with Teflon gun, Raw water connection with goose neck

3.2 Arm exhaust Qty 2nos

- MOC: Polypropylene
- Pipe dia.- 72mm
- Polypropylene grain dome dia. : 360 mm

4.0 Vacuum Lab

4.1 Work Station(refer to S2 for general specification)

1. Work station with under table cabinet and granite worktop.
   Dimensions: 1500mm L x 900 mm D x800 mm H- Qty: 8 nos. (MOC Jindal SS316A or equivalent)
   Under table detachable cubical 500mmW x 600mmD x 700mmH (MOC Jindal SS304A or equivalent 1.2mm thick) Qty: 8 nos

2. Workstation with under table cabinet and granite worktop for both side working. Dimensions: 3000mm L x 1800 mm D x800 mm H- Qty.-1 no. (MOC Jindal SS316A or equivalent)
   Two level reagent rack 20mm D. Under table detachable cubical 500mmW x 600mmD x 700mmH (MOC Jindal SS304A or equivalent 1.2mm thick) Qty: 4 nos.

5.0 Printing Lab

5.1 Polypropylene Fumehood for solvent cleaning (slot die) (Refer to Drawing D 5.1)

- Polypropylene fumehood- Quantity 1 nos.
- Dimensions – 1200mm L x 1100 mm D x 2350 mm H
- Facilities required- N2 & DI water connection with Teflon gun, CDA connection with Al gun.
- General usage sink.- 1 nos.(250x250mm)
- Work top with no perforation
- Load bearing capacity of worktop 10 kg/sqft.
- Electrical power points: 5/15 Amps- 4 nos.
- With storage suitable for chemicals (solvents, flammable) below fumehood
- Storage cabinet should be connected to the fumehood exhaust

5.2 Polypropylene Fumehood for Ink preparation (Refer to drawing D 5.2)

- Polypropylene fumehood- Qty: 1 nos.
- Dimensions – 2400mm L x 1100 mm D x 2350 mm H.
- Facilities required- N2 connection with Teflon gun, CDA connection with Al gun. DI water with Teflon gun,
- General usage sink. - 1 nos. 200 x 200 x 300 mm.
- Work top with no perforation
- Load bearing capacity of worktop 10 kg/sqft.
- Electrical power points: 5/15 Amps- 6 nos.
- With storage suitable for chemicals (solvents, flammable) below fumehood
- Sache/visor with multiple sliding doors
- Storage cabinet should be connected to the fumehood exhaust

5.3 Eye wash & Emergency Shower

- MOC: SS304
- Qty: 2 nos.

5.4 Washing station for cleaning(General specification as mentioned in S4)(Refer to drawing 5.4)

- MOC: polypropylene Qty: 1 no.
- Dimensions: 1500 mm L x 1000 mm D x 900 mm H
- Facilities required- N2 connection with Teflon gun, CDA connection with Al gun, DI water connection with Teflon gun, Raw water connection with goose neck.
- Peg board half width
- Load bearing capacity 30Kg/sq. ft
- Perforated worktop
- Storage under the cleaning station
- Electrical power points: 5/15 Amps- 3 nos.
- Side and back walls to protect against splash

5.5 Solvent bin with exhaust port

- Construction : Jindal SS304A or equivalent with 1.2 mm thick
- Dimensions: 300mm x 600 mm H
- Qty: 1no.

5.6 Dust bin with exhaust port

- MOC : polypropylene
- Dimensions : 400mm x 400mm x500 mm
- Qty. 2nos.

5.7 Work station (Trolley for plasma system) Qty.-1 nos (Refer to drawing D 5.7)

- Dimensions: 500mm L x 500 mm D x800 mm H Jindal SS304 or equivalent work Station with under table cabinet - PU wheels with lock
- With raised edges (to prevent tools from rolling off)
- Total height including wheels, raised edges 800 mm
- 2 drawers and 1 shutter made of Jindal SS304A or equivalent with 1.2mm thick sheet

5.8 Work station with granite top and integrated enclosure (Refer to Drawing D 5.8)

- Dimension 1500mm W x 1000mm D x 2000 mm H with table height of 800 mm (MOC Jindal SS316A or equivalent)
- Table load weight 1000 kg(without granite)
- Shock in horizontal plane 500 kg
- Table top granite(20mm or appropriate thickness)
- Height adjustable feet for levelling
- Sufficient support bars
- Stainless steel frame Jindal SS304A (Dimension as mentioned in specification S2)
- Enclosure from transparent polymer with steel framing

- Doors on front and side
- Front doors 2 with double fold and extra strong hinges to support weight of doors
- Side doors single with double fold
- Ceiling with connection duct for exhaust
- Feed through for cables and cut out for display
- One shelf stainless steel below table, weight load 300 kg (dimension)

5.9 Work station(Trolley for slot die) with stainless steel top (Refer to drawing D 5.9)

- Half of top from flat smooth granite(thickness 20mm)
- Top Jindal SS304A with 1.2mm thick sheet
- Dimension 500mmx500mmx800mmH Jindal SS304A or equivalent (refer to specification S2)
- PU wheels with lock
- With raised edges (to prevent tools from rolling off)
- Total height including wheels, raised edges 800 mm
- 2 drawers made of Jindal SS304A with 1.2mm thick sheet
- 1 double door made of Jindal SS304A with 1.2mm thick sheet
- Half of top from flat smooth granite (thickness 20mm)
- Weight bearing capacity of granite slab 100Kg

5.10 Work station with granite top (Inkjet printer) (Refer to drawing D 5.10), Qty: 2 nos.

- Dimension 1500mmWx1000mmDx800mmH (MOC Jindal SS304A or equivalent and specification as given in S2)
- Granite table top(thickness 20mm)
- Weight load 500 kg
- Height adjustable feet for levelling
- With under table storage (2 drawer, 1 shutter) 500mmW (MOC Jindal SS304A or equivalent 1.2mm thick

5.11 Work station with granite top (side station) (Refer to drawing D 5.11) Qty: 5 nos.

- Station dimension 1000Wx500Dx800mmH (MOC Jindal SS304A or equivalent and other specification as given S2)
- Granite table top(thickness 20mm)
- Weight bearing load 500 kg
- 2 x 2 Half with drawers/doors
- Height adjustable feet for leveling

5.12 Screen storage shelf with granite top (Refer to drawing D 5.12), Qty: 1 nos.

- Dimension 1000Wx500Dx800H (MOC Jindal SS304A or equivalent and other specification as given in S2)
- Granite table top(thickness 20mm)
- Weight bearing load 500 kg
- Height adjustable feet for leveling
- With screen storage rack with support bars in back vertical shelf of 50 mm gap, for max 20 screens
- With two drawers below

5.13 Work station with granite top (For PCs) (Refer to drawing D 5.13) Qty: 2nos.

- Dimension 1500Wx600Dx800mmH (MOC Jindal SS304A or equivalent and specification as given in S2)
- Granite table top(thickness 20mm)
- Weight bearing capacity 500 kg
- Height adjustable feet for levelling
- With under table storage 2 drawers/1shutter 500W (MOC Jindal SS304A or equivalent 1.2mm thick

5.14 Work station (Misc application) (Refer to drawing D 5.14) Qty: 5nos.

- Station dimension 1000Wx600Dx800mmH (MOC Jindal SS304A or equivalent and other specification as given S2)
- Granite table top(thickness 20mm)
- Weight bearing load 500 kg
- 2 x 2 Half with drawers/doors
- Height adjustable feet for leveling

5.15 Work station (For IGT system) (Refer to drawing D5.15) Qty: 1nos.

- Dimension 1000Wx600Dx1400H (MOC Jindal SS304A or equivalent and other specification as given S2)
- Granite top(thickness 20mm),
- Weight bearing load 500 kg
- With integrated enclosure
- Enclosure height 600mm
- 2 x 2 Half with drawers/doors
- Enclosure with ducting connection piece
- Enclosure with double fold split front door or multiple sliding door
- From transparent polymer with steel framing
- Height adjustable feet for leveling

5.16 Work station (Wire bar coating station) (Refer to drawing D5.16) Qty: 1 nos.

- Dimension 1000Wx1000Dx1400H (MOC Jindal SS304A or equivalent and other specification as given S2)
- Granite top(thickness 20mm)
- Weight bearing load 500 kg
- With integrated enclosure
- Enclosure height 600mm
- full width drawers
- Enclosure with ducting connection piece
- Enclosure with split double fold front door or multiple sliding doors
- From transparent polymer with steel framing
- Height adjustable feet for leveling

5.17 Work station (NIR system) (Refer to drawing D5.17)

- Dimension 2000Wx1000Dx1400H (MOC Jindal SS304A or equivalent and other specification as given S2)
- Granite table top(thickness 20mm)
- Weight bearing load 500 kg
- With integrated enclosure
- Enclosure height 600mm
- 2 x 2 Half with drawers/doors
- Enclosure with ducting connection piece
- Enclosure with split foldable front door/any other door
- From transparent polymer with steel framing
- Height adjustable feet for leveling

5.18 Small sink with eye wash, Qty: 2 nos.

- Sink dimension 300x300x800 mm H (MOC Polypropylene)

5.19 Arm exhaust Qty: 6nos

- MOC: Polypropylene
- Pipe dia.- 72mm
- Polypropylene grain dome dia. : 360 mm

5.20 Rack (two level station for oven) (Refer to drawing D 5.20)

- Dimension 1300Wx1000Dx2000H(MOC Jindal SS304A or equivalent and other specification is as given in S2)
- Weight load per shelf 300 kg
- Adjustable feet for leveling with appropriated weight load

6.0 R2R Lab

6.1 Washing station for cleaning

- MOC: polypropylene Qty 1
- Dimensions: 900mm L x 900 mm D x 900 mm H
- Facilities required- N2 connection with Teflon gun, CDA connection with Al gun, DI water connection with Teflon gun, Raw water connection with goose neck.
- Peg board half width
- Load bearing capacity 30Kg/sq. ft
- Perforated worktop with drainage
- Storage under the cleaning station

6.2. Exhaust cap solvent cleaning coating heads(refer to Photograph D6.2)

- 1x1 m with detachable/adjustable curtain(MOC Jindal SS304A or equivalent of 1.2 mm thick sheet)
- Suitable for 750 - 1000 cfm

7.0 Polypropylene fumehood of both side working(Drawing D7.0)

- Polypropylene fumehood- Qty: 1 nos.
- Dimensions – 2400mm L x 1500 mm D x 2200 mm H
- Facilities required- N2 connection with Teflon gun, CDA connection with Al gun, DI water connection with Teflon gun, raw water connection with goose neck.
- General usage sink.- 1 nos (Refer to S1 for dimension)
- Dedicated sinks for cleaning – 4 nos. (Refer to S1 for dimension)
- Electrical power points: 5/15 Amps- 8 nos

Mandatory Terms & Conditions:

1. Manufacturer should be capable to provide customized solutions.
2. Technical bid will be consider only along with the submission of AutoCAD drawing of each table. Please indicate table leg brackets in each workstation in the AutoCAD drawing in order to provide extra strength to the work station.
3. All the drawing are tentative and would need formal approval of auto CAD drawing from the user before doing fabrication
4. All the materials which are used in these work stations and fume hoods must be class 1000 cleanroom compatible.
5. IIT Kanpur purchase committee will visit manufacturing site to evaluate the quality of the completed supplies before the shipment (factory acceptance test).
6. Failing to meet out above mentioned and/or mandatory criterial may lead to disqualification of technical bid.
7. IITK reserves the right to test the quality of stainless steel material (in IITK laboratory and/or any authorized third party agencies) used in the fabrication of work station listed in the tender. IITK also reserves the right to cancel the payment on failing the quality test.
8. Please find/see the drawing attached/given with tender notice, to understand the design and requirement as per specification given in our tender inquiry.
9. Please quote documents lab wise (as per drawing) as asked in the tender notice.

Terms and Conditions:

10. Maximum educational discounts should be applied, Please mention educational discount specifically.
11. Bidder must indicate freight, insurance and installation charges specifically, if applicable.
12. Evaluation will be done on the basis of technical specifications as well as mandatory criteria as mentioned above.
13. Financial bid will be open for those only who qualify all the mandatory criteria given above and technical specification as per our tender notice.
14. Please do mention tender number clearly on envelop.

15. Please send the name and contact details of the person to whom company had supplied a similar systems. Committee may ask for the feedback.
16. The supplier must have supplied systems to institutions of national and/or international repute.
17. Quotation must indicate FCA or FOB prices, if applicable.
18. Compulsory Payment terms & condition is 70% against delivery, 20% after installation and 10% after successful running of equipment for 3 months & approval (bidder must confirm the acceptance on payment terms).
19. Warranty/Guarantee should be clearly mentioned. The Warranty must start from the date of installation at IITK.
20. Installation, demonstration, and training-sessions at IIT Kanpur will have to be provided by the manufacturer or the vendor for the quoted system.
21. Quotation should carry proper certifications like proprietary certificate, authorization certificate from manufacturer, etc.
22. Validity of quotation should be at least for 60 days.
23. Institute is exempted for partial custom duty (CD applicable to IIT Kanpur is 5.15%).
24. The delivery period should be specifically stated. Earlier delivery may be preferred.
25. At any time prior to the deadline for submission of bid, the Institute may, for any reason, at its own initiative, modify the bid document by amendments. Such amendments shall be uploaded on the website through corrigendum and shall form an integral part of bid document. The relevant clauses of the bid document shall be treated as amended accordingly. It shall be the sole responsibility of the prospective bidders to check the website from time to time for any amendment in the tender document. In case of failure to get the amendments, if any, the Institute shall not be responsible for it.
26. The Penalty @1% per week or part thereof subject to max 10% of the delivery price will be deducted from the balance payment, if supply is not completed within aforesaid delivery period.
27. The indenter reserves the right to withhold placement of final order. The right to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason is reserved.

Kindly send the quotation in sealed envelope latest by 2:30PM on 12/10/2017 to the following address.

To,

Prof Siddhartha Panda,

Room No.310,

Samtel Centre for Display Technologies (SCDT), Indian Institute of Technology Kanpur,