

**Supply and Construction of Aluminium structured, wooden panel
and glass cabins with false ceiling around existing equipment in
various Laboratories at NISE Campus**

(Updated Technical Specification Format)

No. 01/14(10)/2016/NISE-PV

Technical Specifications against the scope of work

1 SPV Lighting System Laboratory							
	works	Previous Description	Modified Description	Quantity	Area	Rate/Unit or Rate/length	Total (Rs.)
a	Aluminum Partition:	Aluminum partition should be powder coated, Gauge: 16, Section size: 4" * 1.75", 4 ft. HDF Board Wooden both side should be laminated with 7ft. toughen glass of 6 mm thickness.	<p>Powder coated aluminum partition: Gauge 16, Section size of Aluminum frame: 4" * 1.75";</p> <p>Bottom partition: 4ft. HDF Wooden Board both side should be laminated;</p> <p>Top Partition: 7ft. toughened glass of 6mm thickness</p>		Approx. 1,000 sq.ft		
b	False Ceiling	False ceiling should be PVC tile of size 2'*2' grid or ceiling suspended and water proof.	<p>False ceiling: PVC tile ceiling suspended and waterproof of Size: 2' * 2' Grid;</p> <p>PVC tile Make: Armstrong</p>		Approx. 1,900 sq.ft		
c	Doors	<ul style="list-style-type: none"> • Two Number of door (Approx. 6'10" * 6' and 7' * 7') should be double hinged type. • Two Number of door (Approx. 7' * 4' and 7' * 4') should be single hinged type. Page 5 of 12 • Each door provided with central lock, handle set (inside and outside the door), and surface bolt & barrel bolt (inside the door). • Aluminum door should be powder coated, Gauge: 16, Section size: 4" * 1.75", with toughen 	<p>Double hinged doors with floor machine: 2 nos., Size of door: 6'10" * 6' & 7'*7'(approx.);</p> <p>Single hinged doors with floor machine: 2 nos., Size of door: 7' * 4' & 7' * 4' (approx.);</p> <p>Door Make : powder coated and Aluminum Gauge: 16, Section size: 4" * 1.75", Base partition: ACP sheet, and Top partition: Toughened glass thickness: 6 mm;</p> <p>Each door shall contain: one central lock, two handle set, one surface bolt and one barrel bolt (inside the door)</p>	2Nos. 2Nos.			

		glass of 6 mm thickness & base partition with ACP sheet.				
d	Windows	<ul style="list-style-type: none"> • Four number of window (Approx. 5'2" * 6'5") should be double sliding type with toughen textured glass. • Eight number of window (Approx. 5'2" * 2'10") should be single hinged type with toughen textured glass. <ul style="list-style-type: none"> • Aluminum window should be powder coated, Gauge: 16, Section size: 2½" * 1½" and each window provided with lock, handle set (inside the window). 	<p>Type-1 Double sliding: 4 nos. with toughened texture glass of Size: 5'2" * 6'5" (approx.);</p> <p>Type-2 Single hinged: 8 nos. with toughened texture glass of Size: 5'2" * 2'10" (approx.);</p> <p>Window make: powder coated and Aluminum Gauge: 16, Section size: 2.5 * 1.5;</p> <p>Each window should contain: lock and handle set inside the window</p>	4Nos.	8Nos.	
e	Ceiling LED Light	<ul style="list-style-type: none"> • Approx. 44 number of False ceiling LED Light should be provided. • Make of Ceiling LED Light should be Philips or Osram or Syska. • Should provide the complete electrical wiring of Ceiling LED Lights up to ON/OFF switch board. • Specification: Input power ≤ 15 W, Lumen ≥ 850 lm, Color temperature = 5500° to 6500° K. 	<p>Light Type: LED Square flush mount ceiling Light (size: approx. 2' * 2');</p> <p>Quantity: approx. 40 nos.;</p> <p>Make of LED Light: Philips/ Osram/Syska;</p> <p>Specification: Input power ≥ 24 W, Color temperature = 5500° to 6500° K;</p> <p>Complete wiring of the lights with ON/OFF switch should be done as an integral part of the work -</p> <ol style="list-style-type: none"> Approx. 40 Nos. of 6A ON/OFF switch 2.5sq. mm cable Conduit pipe for electrical wiring 	40 Nos.	40Nos.	

f	Electrical Wiring & Fittings	<ul style="list-style-type: none"> • Make: L&T, Finolex, ABB, Havells, RR Kabel, Legrand & C&S. • Complete Electrical wiring with proper power distribution in the Laboratory as per the requirement of testing. Electrical wire should be Heat Retardant & Fire Retardant (HRFR) type and 4 mm² copper wire from Distribution box to all Load (output power point) as per National Electrical code. • Requirement of 16 number of Output power point and each output power point having 5 number of Modular 6A & 16A combined six pin socket and on/off switch for each socket, and mounted on PVC board. • One number of Main AC distribution board having- 1. Four pole RCCB with current rating: 63 A and rated sensitivity: 100mA. 2. TPN with 8 way distribution board & TPN MCB with current rating: 63A 3. Single pole/double pole C type MCB with current rating: 16A, 20A & 32A depending on Max. Load requirement. • 5 Number of 32A,Air Conditioner DP box with MCB 	<p>Make of Wire, socket, ON/OFF switch, RCCB, TPN and MCB: L&T/ Finolex/ ABB/ Havells/ RR Kabel/ Legrand or C&S;</p> <p>Wire type: HRFR (Heat Retardant & Fire Retardant) ,Wire size: 4 sq. mm, Complete electrical wiring from Distribution box to all Load as per National Electrical Code;</p> <p>Total no. of Output power points inside the lab: 16 Nos.:</p> <p>a) Total number of Modular 6A & 16A combined six pin socket : 80Nos.,</p> <p>b) Total no. of ON/OFF switch: 80Nos.,</p> <p>Mounting Board: PVC type;</p> <p>Main AC distribution board: 1 no., and AC distribution board should contain:</p> <ol style="list-style-type: none"> 1. Four pole RCCB with Current rating: 63A, rated sensitivity: 100mA 2. TPN with 8way distribution board & TPN MCB with current rating 63A 3. Single pole C type MCB with current rating: 20A & Double pole C type MCB with current rating: 32A; <p>Total number of 32A Air conditioner DP box with ON/OFF Switch: 6 nos.</p> <p>Air Conditioner Fittings: I. Copper Tubes</p>	80Nos.	80Nos.	Specify the unit price.	Specify the unit price.	Specify the unit price.	6Nos.
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			II. Drain pipe III. MS-AC stand or cover IV. Installation Job				
2	Integrating Sphere						
	works	Previous Description	Modified Description	Quantity	Area	Rate/Unit or Rate/length	Total (Rs.)
a	Aluminum Partition	Aluminum partition should be powder coated, Gauge: 16, Section size: 4" * 1.75", 4 ft. HDF Board Wooden both side should be laminated with 7ft. toughen glass of 6 mm thickness.	Powder coated aluminum partition: Gauge 16 ,Section size of Aluminum frame: 4" * 1.75"; Bottom partition: 4ft. HDF Wooden Board; Top Partition: 7ft. toughened glass of 6mm thickness		Approx. 380 sq. ft.		
b	False Ceiling	False ceiling should be PVC tile of size 2'*2' grid or ceiling suspended and water proof.	False ceiling make: PVC tile ceiling suspended and waterproof of Size: 2' * 2' Grid; PVC tile make: Armstrong		Approx. 280sq. ft.		
c	Door	<ul style="list-style-type: none"> •Door (Approx. 7' * 7') should be double hinged type. • Each door provided with central lock, handle set (both side the door), and surface bolt & barrel bolt (inside the door). • Aluminum door should be powder coated, Gauge: 16, Section size: 4" * 1.75", with toughen glass of 6 mm thickness & base partition with ACP sheet. 	Double hinged doors with floor machine: 1 no., Size of door: 7' * 7'(approx.); Door make: powder coated Aluminum Gauge: 16,Section size: 4" * 1.75", Base partition: ACP sheet; Top partition: Glass Toughened glass thickness: 6 mm; Each door should contain: one central lock, two handle set, one surface bolt and one barrel bolt (inside the door)	1No.			
d	False Ceiling LED Light	<ul style="list-style-type: none"> •Approx. 8 number of false ceiling LED Light should be provided. • Make of Ceiling LED Light should be Philips or Osram or Syska. 	Light Type: LED Square flush mount ceiling Light (size: approx. 2'*2'); Quantity: approx. 8	8Nos.			

		<ul style="list-style-type: none"> Should provide the complete electrical wiring of Ceiling LED Lights up to ON/OFF switch board. Page 6 of 12 Specification: Input power ≤ 15 W, Lumen ≥ 850 lm, Color temperature = 5500° to 6500° K. 	<p>nos.;</p> <p>Make of LED Light: Philips/ Osram/Syska;</p> <p>Specification: Input power ≥ 24 W, Color temperature = 5500° to 6500° K;</p> <p>Complete wiring of the lights with ON/OFF switch should be done as an integral part of the work -</p> <ol style="list-style-type: none"> Approx. 8 Nos. of 6A ON/OFF switch 2.5sq. mm cable Conduit pipe for electrical wiring 	8Nos.		
e	Electrical wiring and fittings	<ul style="list-style-type: none"> Make: L&T, Finolex, ABB, Havells, RR Kabel, Legrand & C&S. Complete Electrical wiring with proper power distribution in the Laboratory as per the requirement of testing. Electrical wire should be Heat Retardant & Fire Retardant (HRFR) type and 4 mm² copper wire from Distribution box to all Load (output power point). Requirement of 6 number of Output power point with each output power point having 5 number of 6A & 16A combined six pin socket and on/off switch for each socket, and mounted on PVC board. Two number of Main AC distribution board having- 1. Double pole RCCB with current rating: 32 A and rated 	<p>Make of Wire, socket, ON/OFF switch, RCCB, TPN and MCB: L&T/ Finolex/ ABB/ Havells/ RR Kabel/ Legrand or C&S;</p> <p>Wire type: HRFR (Heat Retardant & Fire Retardant), Wire size: 4 sq. mm, Complete electrical wiring from Distribution box to all Load as per National Electrical Code;</p> <p>Total no. of Output power points inside the lab: 3 Nos.,</p> <ol style="list-style-type: none"> Total number of 6A & 16A combined six pin socket : 15 Nos., Total no. of ON/OFF switch: 15 Nos., <p>Mounting board: PVC type;</p> <p>Main AC distribution board: 1 Nos. and AC distribution board should</p>	15Nos. 15Nos.		

		<p>sensitivity: 100mA. 2. DP with 10 way distribution board & DP MCB with current rating: 32A 3. Single pole/Double pole C type MCB with current rating: 16A, 20A & 32A depending on Max. Load requirement.</p> <ul style="list-style-type: none"> • 4 Number of 32A,Air Conditioner DP box with MCB 	<p>contain:</p> <ol style="list-style-type: none"> 1. Double pole RCCB with Current rating: 32A, rated sensitivity: 100mA 2. DP with 10way distribution board & DP MCB with current rating 32A 3. Single pole C type MCB with current rating: 20A and Double pole C type MCB with current rating: 32A; <p>Total number of 32A Air conditioner DP box with ON/OFF Switch: 2 nos.</p>	<p>Specify the unit price.</p> <p>Specify the unit price.</p> <p>Specify the unit price.</p> <p>2Nos.</p>			
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3 Dark Room

	works	Previous Description	Modified Description	Quantity	Area	Rate/Unit or Rate/length	Total (Rs.)
a.	Aluminum Partition	Aluminum partition should be powder coated of black color, Gauge: 16, Section size: 4" * 1.75", with black ACP sheet or aluminum sheet.	<p>Powder coated aluminum partition: Gauge 16, Powder coating color: Black, Section size of Aluminum frame: 4" * 1.75";</p> <p>Complete partition with Black ACP sheet</p>		Approx. 540 sq. ft.		
b.	Door	<ul style="list-style-type: none"> •Door (Approx. 6' * 4') should be single hinged type. •Each door provided with central lock, handle set (inside and outside the door), and surface bolt & barrel bolt (inside the door). •Aluminum door should be powder coated of black color, Gauge: 16, Section size: 4" * 1.75", with black ACP sheet or aluminum sheet. 	<p>Single hinged doors with floor motion: 1 Nos., Size of door: 6 * 4 (approx.);</p> <p>Door make: powder coated Aluminum, Powder coating color: Black, Gauge: 16, Section size: 4" * 1.75"; Complete partition with Black ACP sheet;</p> <p>Each door should contain: one central lock, two handle set, one surface bolt and one barrel bolt (inside</p>	1No.			

			the door)				
c.	Wall Focus LED light	<ul style="list-style-type: none"> • Approx. 4 number of Wall focus LED Light should be provided. • Make of Wall focus LED Light should be Philips or Osram or Syska. • Should provide the complete electrical wiring of Wall focus LED Lights up to ON/OFF switch board. • Specification: Input power ≤ 15 W, Lumen ≥ 850 lm, Color temperature = 5500° to 6500° K. 	<p>Quantity: Approx. 4 nos.;</p> <p>Make of LED Light: Philips/ Osram/Syska;</p> <p>Specification: Input power ≥ 24 W, Color temperature = 5500° to 6500° K;</p> <p>Complete wiring of the lights with ON/OFF switch should be done as an integral part of the work -</p> <ol style="list-style-type: none"> I. Approx. 4 Nos. of 6A ON/OFF switch II. 2.5sq. mm cable III. Conduit pipe for electrical wiring 	4Nos.			
d.	Electrical Wiring & Fittings	<ul style="list-style-type: none"> • Make: L&T, Finolex, ABB, Havells, RR Kabel, Legrand & C&S. • Complete Electrical wiring with proper power distribution in the Laboratory as per the requirement of testing. Electrical wire should be Heat Retardant & Fire Retardant (HRFR) type and 4 mm² copper wire from Distribution box to all Load (output power point). • Requirement of 6 number of Output power point with each output power point having 5 number of 6A & 16A combined six pin socket and on/off switch for each socket, and mounted on PVC board. • Two number of Main AC distribution board having- 1. Double pole RCCB with current 	<p>Make of Wire, socket, ON/OFF switch, RCCB, TPN and MCB: L&T/ Finolex/ ABB/ Havells/ RR Kabel/ Legrand or C&S;</p> <p>Wire type: HRFR (Heat Retardant & Fire Retardant), Wire size: 4 sq. mm, Complete electrical wiring from Distribution box to all Load as per National Electrical Code;</p> <p>Total no. of Output power points inside the lab: 3 Nos. ,</p> <ol style="list-style-type: none"> a) Total number of 6A & 16A combined six pin socket: 15Nos., b) Total no. of ON/OFF switch: 15Nos., <p>Mounting board: PVC type;</p>	15Nos. 15Nos.			

		<p>rating: 32 A and rated sensitivity: 100mA. 2. DP with 10 way distribution board & DP MCB with current rating: 32A 3. Single pole/Double pole C type MCB with current rating: 16A, 20A & 32A depending on Max. Load requirement.</p> <p>• 4 Number of 32A,Air Conditioner DP box with MCB</p>	<p>Main AC distribution board: 2 Nos. and AC distribution board should contain:</p> <ol style="list-style-type: none"> 1. Double pole RCCB with Current rating: 32A, rated sensitivity: 100mA 2. DP with 10way distribution board & DP MCB with current rating 32A 3. Single pole C type MCB with current rating:20A and Double pole C type MCB with current rating:32A <p>Total number of 32A Air conditioner DP box with ON/OFF Switch: 2 nos.</p> <p>Air Conditioner Fittings:</p> <ol style="list-style-type: none"> I. Copper Tubes II. Drain pipe III. MS-AC stand or cover IV. Installation Job 	<p>Specify the unit price.</p> <p>Specify the unit price.</p> <p>Specify the unit price.</p> <p>2Nos.</p>			
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4	PVTF						
	works	Previous Description	Modified Description	Quantity	Area	Rate/Unit or Rate/length	Total (Rs.)
a	Aluminum Partition	Aluminum partition should be powder coated, Gauge: 16, Section size: 4" * 1.75", 4 ft. HDF Board Wooden both side should be laminated with 7ft. toughen glass of 5 mm thickness.	Powder coated aluminum partition: Gauge 16, Section size of Aluminum frame: 4 * 1.75; Bottom partition: 4ft. HDF Wooden Board; Top Partition: 7ft. toughened glass of 5mm thickness		Approx. 1100 sq. ft.		
b	False Ceiling	False ceiling should be PVC tile of size 2'*2' grid or ceiling suspended and water proof.	False ceiling make: PVC tile ceiling suspended and waterproof of Size: 2 * 2 Grid; PVC tile make:		Approx. 300 sq. ft.		

			Armstrong				
5	Dismantling	Dismantling the exiting false ceiling/wooden partition in the Laboratory.					
Total Amount							

Note:

- A. Vendor shall Quote in the present format
- B. Please clearly state details of all taxes.
- C. Please note that Quantity & Area shall be vary in the given site.
- D. Comparison shall be done on the total unit cost price.
- E. Vendors shall submit EMD and earlier submitted EMD shall remain valid for present tender.

Signature:.....

Name:.....

Name of the Company:.....

Place:

Date:

Company Seal