

भारत सरकार/GOVERNMENT OF INDIA
अंतरिक्ष विभाग/DEPARTMENT OF SPACE
विक्रम साराभाई अंतरिक्ष केंद्र/VIKRAM SARABHAI SPACE CENTRE
तिरुवनंतपुरम/THIRUVANANTHAPURAM – 695 022

विज्ञा. सं. वीएसएससी/पी/विज्ञा./292/2019 दि. DT. 05.12.2019

ADVT. NO. VSSC/P/ADVT/292/2019 DT. 05.12.2019

भारत के राष्ट्रपति के लिए तथा उनकी ओर से, वरिष्ठ प्रधान, क्रय एवं भंडार, विक्रम साराभाई अंतरिक्ष केंद्र (वीएसएससी), तिरुवनंतपुरम निम्नलिखित के लिए (क्रम सं. 1 और 2) मोहरबंद निविदाएं तथा (क्रम सं. 3 से 8 तक) ई-प्रापण के माध्यम से निविदाएं आमंत्रित करता है।

For & on behalf of the President of India, the Sr. Head Purchase & Stores, Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram invites Sealed Tenders (for Sl. No. 1 & 2) and Tenders through e-procurement (for Sl. No. 3 to 8) for the following :-

क्रम सं. Sl. No	निविदा सं. Tender No.	वर्णन / Description	मात्रा Qty.	निविदा शुल्क Tender Fee
01.	3150-2019-5065 [दो भाग / TWO PART]	वीआरसी श्रोताकक्ष का नवीकरण Renovation of VRC Auditorium	1 लॉट/Lot	रु. 560/ प्रति निविदा / per Tender
02.	6022-2019-5493 [एकल भाग / SINGLE PART]	टाइटैनियम स्पंज के निर्माण एवं आपूर्ति Manufacture and Supply of Titanium Sponge	250 मैट्रिक टन / Metric Tonne	
नोट:- विनिर्देशन तथा विस्तृत निबंधन एवं शर्तें निविदा दस्तावेज़ के अनुसार Note :- Specification and detailed terms & conditions as per Tender document				
03.	VSSC/ADMNAUX/ 2019E1740101 [एकल भाग / SINGLE PART]	दाब-विद्युत आधारित अस्थिर दाब संवेदक Piezoelectric based unsteady pressure sensors	32 सं./No.	लागू नहीं / NA
04.	VSSC/PRSOPURCH/2019E14 97502 [दो भाग / TWO PART]	पश्चवाही प्रावधान सहित 100 ली. रिएक्टर एवं निर्वात आसवन ढांचा 100 L reactor cum vacuum distillation setup with reflux provision	1 सं./No.	
05.	VSSC/PRSOPURCH/ 2019E1767001 [दो भाग / TWO PART]	विद्युत-यांत्रिक संहनन प्रणाली Electromechanical Compaction system	1 सं./No.	
06.	VSSC/PRSOPURCH/ 2019E1834401 [दो भाग / TWO PART]	आरपीपी सुविधाओं के लिए टर्नकी आधार पर अग्नि रक्षण प्रणाली की अभिकल्पना, आपूर्ति, संस्थापन, परीक्षण तथा कमीशनिंग Design, Supply, Installation, Testing and Commissioning of Fire Protection System on turnkey basis for RPP facilities	1 लॉट/Lot	

07.	VSSC/PRSOPURCH/ 2019E1858701 [एकल भाग / SINGLE PART]	नम्य मध्यवर्ती थोक कंटाइनर (एफआईबीसी) बैग Flexible Intermediate Bulk Container (FIBC) bags	3000 सं. / No.	लागू नहीं / NA
08.	VSSC/MMEPUR/ 2019E1837901 [दो भाग / TWO PART]	उपसाधनों सहित क्षेत्र उत्सर्जन स्कैनिंग इलेक्ट्रॉन गाइक्रोस्कोप Field Emission Scanning Electron Microscope with accessories	1 सं./No.	

निविदा प्रारूप जारी करने की अंतिम तिथि Last Date for issue of Tender Forms (क्रम सं. / Sl. No. 1) (क्रम सं. / Sl. No. 2)	08/01/2020 up to 16:00 Hrs. 13/01/2020 up to 16:00 Hrs.
निविदा प्राप्त करने की अंतिम तिथि / Due Date for Receipt of Tender (क्रम सं. / Sl. No. 1) (क्रम सं. / Sl. No. 2)	09/01/2020 up to 16:00 Hrs. 14/01/2020 up to 16:00 Hrs.
निविदा खोलने की तिथि / Tender Opening Date (क्रम सं. / Sl. No. 1) (क्रम सं. / Sl. No. 2)	10/01/2020 at 10:00 Hrs. 15/01/2020 at 10:00 Hrs.

Sl. No.	निविदा प्रारूपों को डाउनलोड करने की समय-सीमा / Time limit for download of Tender Forms	बोली प्रस्तुत करने की समय-सीमा / Time limit for submission of Bid	बोली खोलने की तिथि Bid Opening date
03.	Upto 30.12.2019 [16:59 Hrs.]	Upto 30.12.2019 [17:00 Hrs.]	06.01.2020 [10:30 Hrs.]
04.	Upto 03.01.2020 [11:00 Hrs.]	Upto 03.01.2020 [11:00 Hrs.]	09.01.2020 [14:01 Hrs.]
05.	Upto 31.12.2019 [14:00 Hrs.]	Upto 31.12.2019 [14:00 Hrs.]	03.01.2020 [10:01 Hrs.]
06.	Upto 13.01.2020 [14:00 Hrs.]	Upto 13.01.2020 [14:00 Hrs.]	16.01.2020 [10:01 Hrs.]
07.	Upto 03.01.2020 [14:00 Hrs.]	Upto 03.01.2020 [14:00 Hrs.]	08.01.2020 [10:01 Hrs.]
08.	Upto 14.01.2020 [14:00 Hrs.]	Upto 14.01.2020 [14:00 Hrs.]	16.01.2020 [11:00 Hrs.]

क्रम सं. 03 से 08 तक, विवरण ई-प्रापण पोर्टल <http://eprocure.isro.gov.in> पर उपलब्ध है।

For Sl. No. 03 to 08, details are available on ISRO e-procurement portal <http://eprocure.isro.gov.in>.

शुद्धिपत्र, यदि कोई हो तो, हमारे वेबसाइट www.vssc.gov.in / www.isro.gov.in में मात्र प्रकाशित किया जाएगा।

Corrigendum, if any will be published in our websites : www.vssc.gov.in / www.isro.gov.in only.

हस्ताक्षरित/Sd/-

वरि. प्रधान, क्रय एवं भंडार / Sr. Head, Purchase & Stores

Note :-

1. Full details and specification of the item and general instructions to be followed regarding submission of tender is indicated in the tender document.
2. Tender Documents can be downloaded from our websites and also be obtained from the following address on request and submission of tender fee :

For Sl. No. 1 : Sr. Purchase & Stores Officer, Main Purchase, Purchase Unit-I, RFF Area, VSSC, ISRO PO, Thiruvananthapuram - 695 022, Ph : 0471-256 3139 / 3523.

For Sl. No. 2 : Sr. Purchase & Stores Officer, MME Purchase, Purchase Unit-V, RFF Area, VSSC, ISRO PO, Thiruvananthapuram - 695 022, Ph : 0471-256 2831.

While requesting for Tender Documents please indicate on the envelope as "Request for Tender Documents- Tender No..... dt.....".

3. Tender Fee (Rs. 560/-) shall be paid in the form of CROSSED DEMAND DRAFT ONLY. Other mode of payment is not acceptable. **The Demand Draft should be in favour of : Sr. Accounts Officer, Centre Accounts, VSSC (For Sl. No. 1 & 2) payable at State Bank of India, Thumba, Thiruvananthapuram [The tender fee is NON-REFUNDABLE].**

Government Departments, PSUs (both Central and State), Small Scale Industries units borne in the list of NSIC and foreign sources are exempted from submission of tender fee. Those who are coming under the above category should submit documentary evidence for the same.

4. While submitting your offer, the envelope shall be clearly superscribed with Tender No. and Due Date and to be sent to the following address.

For Sl. No. 1 : Sr. Purchase & Stores Officer, Main Purchase, Purchase Unit-I, RFF Area, VSSC, ISRO PO, Thiruvananthapuram - 695 022, Ph : 0471-256 3139 / 3523.

For Sl. No. 2 : Sr. Purchase & Stores Officer, MME Purchase, Purchase Unit-V, RFF Area, VSSC, ISRO PO, Thiruvananthapuram - 695 022, Ph : 0471-256 2831.

5. Quotations received after the Due Date/Time will not be considered.
6. VSSC, Thiruvananthapuram is not responsible for any postal delay/loss of documents in transit.
7. Sr. Head, Purchase & Stores, VSSC, Thiruvananthapuram reserves the right to accept or reject any/or all the tenders in part or full without assigning any reasons thereof.

भारत सरकार
अंतरिक्ष विभाग (अं.वि.)
विक्रम साराभाई अन्तरिक्ष केन्द्र
तिरुवनन्तपुरम -695022
क्रय एवं भंडार



GOVERNMENT OF INDIA
DEPARTMENT OF SPACE (DOS)
VIKRAM SARABHAI SPACE CENTRE
THIRUVANANTHAPURAM 695022
PURCHASE UNIT-I, MAIN PURCHASE, RFF AREA
Ph No. 0471-2563139, 3676, 3522, 3523 Fax. 0471-2705092 / 2562065
e-mail : spso_psd@vssc.gov.in

निविदा आमंत्रण
INVITATION TO TENDER

मैसर्स
M/s 00000 हमारी संदर्भ सं
Our Ref. No. 3150 2019-005065-01
निविदा अंतिम तिथि
Tender Due at 16:00 hrs IST on 09/01/2020

महोदय

Dear Sirs,

कृपया निम्नलिखित मदों की आपूर्ति के लिए अनुलग्नक (फार्म सं. संलग्न) में उल्लिखित निबंधन एवं शर्तों के अनुसार संलग्न निविदा प्रपत्र में वर्णनात्मक सूचीपत्र/पैम्फलेट/साहित्य सहित हमारी संदर्भ सं. एवं अंतिम तिथि (मोटे अक्षरों में) ऊपर लिखते हुए अपनी मुहरबंद निविदा प्रस्तुत करें।

Please submit your sealed quotation, in the Tender Form enclosed here along with the descriptive catalogues /pamphlets /literature, superscribed with Our Ref.No. and Due Date for the supply of the following items as per the terms & conditions mentioned in Annexure (Form No. null)

क्र.सं. Sl. No.	विनिर्देशों सहित मद का विवरण Description of items with Specifications	इकाई Unit	मात्रा Quantity
1	Renovation of VRC Auditorium at VSSC, Trivandrum on turn-key basis, as per the Request For Proposal (RFP) attached.	LOT	1

सुपुर्दगी स्थल

Delivery At VSSC

प्रेषण की विधि

Mode of Despatch ON SITE

शुल्क छूट

Duty Exemptions

विशेष अनुदेश

Special Instructions NIL

विशेष निबंधन

Specific Terms

निविदाकारों को अनुदेश

Instructions to Tenderers

(1) Note:- Interested parties shall send their willingness for participating in the tender on or before 13th December 2019. Only responded parties will be invited for the Pre-bid meeting, which is tentatively scheduled in the 4th week of December, 2019.

(2) Parties shall submit their bid within 10 days from the date of Pre-bid meeting.

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भारत के राष्ट्रपति के लिए एवं ओर से
For and on behalf of the President of India
क्रेता / The Purchaser

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Enclosures:

- 1) *Annexure-I: Sketch of VRC auditorium layout at VSSC, Trivandrum*
- 2) *Annexure-II: List of approved makes for electrical works*

1 INTRODUCTION

Vikram Sarabhai Space Centre (VSSC) is the lead Centre of Indian Space Research Organization (ISRO) under the Department of Space (DOS), Government of India. The Centre houses auditoriums for conducting various events. It is planned to renovate one of the main auditoriums at Veli Research Complex (VRC) of VSSC through external contractor on turn-key basis. This document describes the detailed scope of work, description, work sequence, general terms and conditions. Successful bidder will be short-listed through techno-commercial evaluation of offers and facilities, by VSSC experts.

2 OBJECTIVE

Renovation of VRC Auditorium at VSSC on turn-key basis, involves replacement of Chairs, augmentation of illumination, augmentation of air-conditioning, supply of podium, installation of stage tables, installation of audio/ visual systems and other associated works mentioned in the scope of work.

3 SCOPE OF WORK - CONTRACTOR

The scope of work is renovation of VRC Auditorium at VSSC on turn-key basis. Following works are under the scope of the Contractor:

- i Replacement of existing old chairs with new one and associated works.
- ii Epoxy flooring.
- iii Replacement of damaged side panels and painting.
- iv Supply of new height adjustable podium.
- v Supply and installation of detachable tables for the stage.
- vi Replacement of existing lighting with LED to improve the illumination and all associated works.
- vii Augmentation of Air-conditioning unit.
- viii Supply and installation of new audio/ visual systems.

All the necessary components and accessories required for the renovation shall be under the scope of the Contractor.

Location of site

Vikram Sarabhai Space Centre (VSSC)
Veli Research Complex (VRC)
ISRO PO,
Thiruvananthapuram – 695 022, Kerala, India

4 SCOPE OF VSSC

- i Electric-power:- 415V, 50Hz, 3P+N+E approx. 30 m away from the Auditorium control room.
- ii Water

5 MODE OF SUBMISSION OF OFFERS

- ❖ Upon the receipt of Request For Proposal (RFP) from VSSC, interested parties shall visit the site before submission of offer, in order to assess the detailed quantum of work. Site assessment is a mandatory criterion for qualification and bid of those Contractors who does not carry out site assessment will not be considered.
- ❖ RFP shall be submitted in Two Part Bid system – 'UNPRICED TECHNO COMMERCIAL BID' (Part-I) and 'PRICE BID' (Part-II) in separate sealed envelopes.

5.1 UNPRICED TECHNO COMMERCIAL BID (Part-I) shall contain the following.

- ▶ List of items with detailed technical specifications. PARTIAL/ INCOMPLETE offers shall not be considered for further processing. Any TECHNICAL DEVIATIONS from the specifications listed under this RFP shall be separately highlighted in the technical-bid.
- ▶ Any DEVIATIONS in commercial conditions mentioned in the RFP are also to be separately highlighted in this bid.

5.2 PRICE BID (Part-II) shall contain the following.

The Contractor shall quote price bid under 3 heads.

PART A – Supply of major items viz., Chairs, audio/ visual unit, AC, podium, tables

- a) Chairs - 250 nos.
- b) Podium -2 nos.
- c) Stage table - 6 nos.
- d) Stage chairs - 12 nos.
- e) AC - 1 no.
- f) Audio visuals - 1 lot
- g) TV - 2 nos.

PART B – Supply of all items other than those under Part A including side panels, LED lights, fittings and other accessories etc

PART C – Installation, integrated demonstration of all system and handing over.

6 WORK DESCRIPTION AND REQUIREMENTS

a) Chair replacement

- Removal of existing chairs
- Epoxy flooring
- Installation of new chairs with proper foundation/ bottom support. Chemical installation method is preferred. However, Contractor may suggest alternate options, if any.
- Old chairs shall be taken by the Contractor on buy-back mode and appropriate amount to be deducted from the total cost. Contractor shall quote the rate for old chairs separately. Offers without this rate will not be considered.

Specification of new chair:

Structure:

- Stand – To be 200 x 75 x 6 mm. MS Flat welded to 38 x 38 x 2 mm, CRCA tube 22", long further supported to 38 x 38 x 2 mm – 11" long CRCA tube.
- Tip – Up movement supported by 200 x 75 x 6 mm MS Flat with MS twin support 12 mm in Dia.
- Seat Bracket to be 12 x 25 x 100 mm MS Flat welded to a plate of 80 x 100 x 3 mm.
- Back Bracket to be 200 x 70 x 70 mm by 1.6 mm CRCA sheet with 2 longitudinal holes for bolting.

Back:

- Plywood size 480 x 450 x 12 mm thick. PU foam 480 x 450 x 50 mm

Seat:

- Plywood size 440 x 470 x 19mm thick. PU foam 460 x 480 x 80 mm.

Side Panels:

- All side panels (to cover metal parts) to be of 12 mm plywood covered with fabric and fused with foam.

Arm rest:

- Wooden Waterfall Handles (approx. size 425 x 25 x 55 / 70 mm). Independent arm rest shall be provided for the chairs at 1st row and balance can be with common arm rest.
- Option for providing mic in 1st row of Chairs shall be worked out and mentioned in the offer.

Fabric:

- 100% Polyester. Mass : 375 g/ m. Abrasion resistance: 80000 cycles. Shall have good fire resistance capability/ flame proof. Colour: Green.

Sketch of the auditorium which shows the seating arrangement is given in Annexure I.

b) Stage - Table and chairs

- Supply of detachable table (6 nos.)
- Individual tables shall be provisionally assembled as a single piece with aesthetic table top cloth/ cover.
- Supply of executive chairs suitable for stage (12 nos.)

c) Civil works related to side paneling, ceiling etc.

Sl. no.	Description of work	Approx. Quantity	Unit
1	Providing and fixing 19mm thick ply wood with one side commercial veneering and one side Teak wood veneering fixed on wall with necessary screws and nails at all heights, etc; complete as per specifications and directions of VSSC.	105.00	Sqm
2	Removing ply wood with one side commercial veneering and one side Teak wood veneering of 19mm thick without any damages to the existing wall including disposal of serviceable materials to identified area and unserviceable materials 1km away from the site as directed by VSSC. Thickness above 10mm upto 25mm.	95.00	Sqm
3	Providing and fixing 1st class seasoned TEAK WOOD of size 10x25mm along the bottom side of veneer wall pannelling the work includes the charges of material, labour for fixing including necessary screws etc complete all as directed by VSSC.	30.00	Mtr

Sl. no.	Description of work	Approx. Quantity	Unit
4	Removing false ceiling Particle boards of size 120x60x20mm at all heights including disposal of unserviceable materials 1km away from site and stacking the serviceable materials in identified area etc complete all as directed by VSSC.	188.00	Each
5	Providing and fixing false ceiling with Particle boards of grid size 120x60mm and of 20mm thick at all heights including the charges for cutting the boards to the required grid size as per the existing false ceiling , fixing on the wooden runners, necessary screws etc at all heights and complete all as directed by VSSC.	188.00	Sqm
6	Painting internal plastered surfaces with one or more coats of super acrylic emulsion paint of approved make and colour (Premium Apcolite of Asian Paints or Rangoli Fashion of Berger Paints or equivalent) to give an even shade with required finish including cleaning the surfaces, filling the crevices with approved filler, scaffolding, curing, etc.	475.00	Sqm
7	Polishing Veneer plywood (Matt finish) with TWO or more coats including a coat of wood filler on new work etc.	140.00	Sqm
	Supplying, fabricating, assembling, hoisting/ erecting and fixing in position UPTO AN INTIAL HEIGHT OF 6.00 MTR and with all leads, structural steel works of welded built-up sections, in the situations described hereinafter including a) cutting of components to required lengths/widths and shapes/profiles, b) smooth machining of edges/faces , c) welding (electric arc welding) at joints of built-up sections/single sections for required weld lengths and sizes		

Sl. no.	Description of work	Approx. Quantity	Unit
	<p>and d) painting all over with two coats of EPOXY PAINT of approved quality , make and colour/shade over a coat of appropriate primer with surfaces duly prepared to receive painting etc., complete all as directed by the Engineer-in-charge <u>NOTE</u> : The Contractor shall submit fabrication shop drawings for work involved based on construction drawings (that may be issued during construction period) for approval by VSSC.</p> <p>The fabrication work shall start only after approval to the fabrication drawings. Any change required in the fabrication drawings shall be carried out at no extra cost over the quoted rates. Fabrication shall be in a perfectly workmanship like manner and as provided in Section V and VI of IS 800 and IS 7215. Welding shall be carried out by qualified welders. Electrodes for welding, the procedure, selection, test and inspection shall conform to provisions in IS 816, IS 818, IS 822, and IS 833. Erection/hoisting shall commence only after passing of fabricated parts by the Engineer -in- charge.</p>		
8.1	Structural steel works and welded built up sections in items above but with MS Flats, Plates of any thickness.		
8.2	Hot finished seamless type tubes (Rectangular/ Square tubular sections)		
8.3	Structural steel works as in item above but with MS angles tees and other sections.		
9	Providing and fixing Acoustic wall panel boards of size 60x60mm and of 20mm thick matching with the existing wall panel boards including		

Sl. no.	Description of work	Approx. Quantity	Unit
	the charges for cutting the boards to the required grid size as per the existing wall panneling , fixing on the wooden runners, necessary screws etc at all heights.		
10	Disposal of construction waste		

d) Lighting and electrical works

- ▶ Average illumination required inside the auditorium at 1.5 M level is 750 lux.
- ▶ The items under electrical works are tentative quantities based on our assessment. Any other items which is not covered in the below list and also essential as per electrical design may be included in the offer.
- ▶ Make of light fittings shall be M/s Philips and make of all other electrical items shall be as per the "list of approved makes for electrical works" from CEPO, DoS, Bengaluru attached as Annexure-II.

Type: Tunable Colour Correction Temperature lighting system

Sl. No.	Description	Approx. quantity	Unit
1	Supply & installation of white 2'x2', Recessed dimmable LED module with power consumption of 73 W, system flux of 8000 lm and luminous efficacy > 110 lm/W, CRI >= 80, adjustable CCT 2700 K to 6500 K and UGR <19, SDCM value < 3, power factor > 0.9. The housing shall be made of composite materials, with optical cover made of polycarbonate bowl and matt finish lens. The luminaires shall be IP20, IK02 and safety class 1 protection. The luminaire dimension shall be of 597 x 597 x 86 (lxbxh) mm. The luminaire shall be compatible for different scene setting at different color temperatures from the same LED luminaire Philips Spec: RC464B LED80S/TWH PSD W60L60 VPC W	36	Nos
2	Supply & installation of Sky cove LED strip 5M,	35	Mtrs

Sl. No.	Description	Approx. quantity	Unit
	WW, IP 65 or better with driver		
3	Supply & installation of Philips make, 3W Anthracite LED Step Light	14	Nos
4	Supply & installation of track for installation of track light fittings	12	Mtrs
5	Supply & installation of Track mounted accent lighting luminaire in pressure diecast housing with 2000 lumen package and CRI > 80. Power factor >0.9 beam angle maximum of 26 degree Philips Spec : ST271T LED20 840 PSU-E WB WH	10	Nos
6	Lighting control DDBC-120 V4 Single Channel 20 A Tunable DALI Controller 12NC:913703685109	3	Nos
7	Lighting control 6 Button Antumbra Display Keypad 16 Pages support up to 96 Functions PADPE-AM 12NC:913703971007	2	Nos
8	Lighting control Philips Network Power Supply 15 V DC 1.5 A regulated power supply to supplement the DyNet network DC supply. DDNP1501 12NC:913703090309	1	Nos
9	Lighting control DACM -V2 Backbone communication module 12NC:913703970707	2	Nos
10	Lighting control DDRC1220FR/GLV3-HSNCODE:85437049 -12 channel 20A Relay Actuator 12NC:913703243009	2	Nos

Electrical works:

Sl. No.	Description	Approx. Quantity	Unit
1.0	Supply of following Double door type VTPN/ETPN MCB DBs (IP 43) of 16 SWG CRCA sheet steel enclosure, dust and vermin protected, fully factory fabricated rated for 440V, 3 phase, 50 Hz AC supply operation, inclusive of busbar of suitable capacity, neutral link with required outgoing, DIN bar, earthing terminals and with silicon based fire/ Heat resistant coating applied inside the DB and powder coated suitable for incorporating SP/DP/TP MCB as specified below conforming to IS 8623-1&3 and IEC 61439 (with latest amendments) including supply of MCBs complete as required.(Legrand make)		
1.1	4 way VTPN MCB DB (IP 43) with adaptor box on top and bottom. Incoming :- 63A, 100 mA, 4P ELMCB - 1 No. Outgoing :- 32A TP MCB -2 Nos.	1	No
1.2	6 way ETPN MCB DB (IP 43) with adaptor box on top and bottom. Incoming :- 32A, 100 mA, 4P ELMCB - 1 No. Outgoing :- 16A SP MCB -12 Nos.	2	No
1.3	Flexy DB for making DG power provision to AC units and also necessary power cable for feeding supply & for installation of light control modules in control room, installation of the flexy DB and connected works as required and as directed by VSSC.	2	Set
2.0	Data cable for controlling light dimming provision	1	LOT

Sl. No.	Description	Approx. Quantity	Unit
3.0	Installation of following single phase/3 phase and neutral distribution boards to be concealed in wall as required including associated civil works, earthing as per specifications and as directed by VSSC.		
3.1	4 way VTPN MCB DB	1	No
3.2	6 way ETPN MCB DB	2	Nos
4.0	Supply and installation of 63A 4P two way centre off Changeover switch:- The work includes supply of 63A 4P two way centre off Changeover switch and installation of the same in existing DB ec. complete as required and as directed by VSSC.	2	Nos
5.0	Supply of following RCBO in MS box . The work also includes supply and fabrication of 14 SWG MS box of 26 cm (W) x 30 cm (H) x 10 cm (D) size, cutting, welding, painting with powder coating, terminations of all wires/cables, interconnections, earthing etc, complete as required and as directed by the VSSC.		
5.1	63A, 100mA 4 pole RCBO in MS enclosure	1	No
6.0	Installation of following ELMCB with enclosure directly on wall/pole:-The work includes fixing of following with enclosure on the wall/ pole, with all materials required for installation complete with necessary interconnections, earthing etc complete as required and as directed by VSSC.		
6.1	63A, 100mA 4 pole RCBO in MS enclosure	1	No

Sl. No.	Description	Approx. Quantity	Unit
7.0	Supply and Installation of UPVC cable management system for power supply distribution Including provision to fix power sockets, including supply of fixing materials, interconnecting, clamps, screws as required. UPVC cable management system consisting of snap-fit lids 2 Nos cable divider and allied accessories such as internal tees, external tees, flat tees etc. It shall have provision to accept mounting boxes that snap fit into the profile complete as required and as directed by VSSC. (Legrand make.)		
7.1	160 x 50 mm size.	70	Mtrs
7.2	100 x 50 mm size.	80	Mtrs
8.0	Supply and Installation of DLP Aluminium adaptable trunking system with full rigid cover on wall / floor. (Legrand make)		
8.1	105 x 50 mm	30	Mtrs
9.0	Supply and installation of ISI marked UPVC mini trunking of milky white or grey colour of the following sizes on wall or on column or on beam or ceiling including supply and fixing with suitable size of screws complete as required and directed by VSSC.		
9.1	32 x 20 mm mini trunking.	125	Mtrs
10.0	Supply and laying of following sizes of 1.1 kV grade FRLS PVC insulated single core, stranded copper conductor cable conforming to IS:694 (with latest amendments) in already fixed cable management system / mini trunking / PVC casing & capping / PVC / MS conduits etc. complete as required and as directed by VSSC.		

Sl. No.	Description	Approx. Quantity	Unit
10.1	3R x 1.5 Sq.mm copper wire.	550	Mtrs
10.2	3R x 2.5 Sq.mm copper wire.	400	Mtrs
10.3	3R x 4 Sq.mm copper wire.	60	Mtrs
10.4	3R x 6 Sq.mm copper wire.	40	Mtrs
11.0	Supply and laying of following sizes of 1.1 kV grade FRLS PVC insulated single core, stranded copper conductor cable conforming to IS:694 (with latest amendments) above 5Mtr in already fixed cable management system / mini trunking / PVC casing & capping / PVC / MS conduits etc. complete as required and as directed by VSSC.		
11.1	3R x 1.5 Sq.mm copper wire.	450	Mtrs
11.2	3R x 2.5 Sq.mm copper wire.	300	Mtrs
12.0	Providing end terminations for following single core, 1.1 kV grade, PVC insulated, multistranded copper conductor cable with copper lugs, etc complete with terminal connections as required and as directed by VSSC		
12.1	3R x 4 Sq.mm copper wire.	10	Nos
12.2	3R x 6 Sq.mm copper wire.	10	Nos
13.0	Supply and fixing of the following modular power sockets / switches suitable for fixing in the cable management system including supply isolation box and all accessories required for fixing the switch socket outlets complete with all interconnections earthing as required and as directed by VSSC. (Make-Legrand, Model-Arteor)		
13.1	6A Switch - 1 No. 6A Socket - 1 No.	10	Set
13.2	16A Switch - 1 No.	5	Set

Sl. No.	Description	Approx. Quantity	Unit
	16A/6A Socket - 1 No.		
14.0	Supply and fixing of power boards with modular switches & sockets directly on wall. Each set has a suitable factory made plastic boxes and modular white colour front plates complete with all interconnections, terminations etc. as required and as directed by VSSC. (Make-Legrand, Model-Mylinec)		
14.1	6A Switch - 3 Nos. 6A Socket - 3 Nos.	12	Set
14.2	16A Switch - 2 No. 16A Socket - 2 No.	8	Set
14.3	16A Switch - 2 No. 16A Socket - 2 No. 6A Switch - 2 No 6A Socket - 2 No	4	Set
14.4	16A Switch - 4 No. 16A Socket - 4 No.	4	Set
14.5	16A Switch - 12No.	2	Set
14.6	16A 2 Way Switch - 12No.	2	Set
15.0	Supply of following sizes of 1.1 kV grade, XLPE insulated, and over all sheathed, stranded Aluminium conductor, flat steel strip / wire armoured cables conforming to IS.7098 / Part 1 with latest amendments. The cables/drum shall bear ISI certification mark.		
15.1	4C x 16 Sq.mm XLPE armoured Al conductor cable	100	Mtrs

Sl. No.	Description	Approx. Quantity	Unit
16.0	Laying of the following sizes of 1.1 kV grade XLPE insulated PVC sheathed armoured Aluminium conductor cables in existing trench / on wall including transportation of cables to site, removing of trench cover and reclosing the trench covers after laying cables with all necessary materials such as brackets, clamps, GI spacers etc. including chipping and replastering wherever required complete as required and as directed by VSSC.		
16.1	4C x 16 Sq.mm XLPE armoured Al conductor cable	100	Mtrs
17.0	Providing end terminations of the following sizes of 1.1 kV grade, XLPE insulated, PVC sheathed, armoured Aluminium conductor cable including supply of all required materials such as cable gland, insulation tape, identification tags and numbering ferrules, compression type lugs complete with terminal connections and earthing of glands as required and as directed by VSSC.		
17.1	4 C x 16 Sq.mm.	8	Nos
18.0	Supply and laying of electrolytic copper wire of following sizes including supply of fixing clamps and accessories when laid inside the building and inclusive of excavation & refilling of earth when laid outside the building and tinning of copper wires, interconnections with earth pit and equipment, terminations / interconnections in an approved manner as per IS 3043 (with latest amendments) inclusive of supply of all hardware complete as required.		
18.1	12 SWG	200	Mtrs

Sl. No.	Description	Approx. Quantity	Unit
19.0	Supply & laying of 20mm dia heavy grade FRLS PVC Pipe concealed in floor work Includes chipping the concrete floor of thickness 15cm for laying of cable through PVC pipe, plastering the same complete as required including supply of all materials for the work and as directed by VSSC.	30	Mtrs
20.0	Supply & laying of 25mm dia heavy grade FRLS PVC Pipe concealed in floor work includes chipping the concrete floor of thickness 15cm for laying of cable through PVC pipe, plastering the same complete as required including supply of all materials for the work and as directed by VSSC.	40	Mtrs
21.0	Supply and laying of ISI marked FRLS heavy grade PVC conduit surface run on wall / ceiling / column using high grade PVC spacers and saddles at an interval of 60 cm and drawing of 14 SWG GI wire as fish wire etc. complete asrequired and as directed by VSSC.		
21.1	20 mm dia	200	Mtrs
21.2	25 mm dia	200	Mtrs
22.0	Supply and laying of ISI marked FRLS heavy grade PVC conduit surface run above 5 mtr on wall / ceiling / column using high grade PVC spacers and saddles at an interval of 60 cm and drawing of 14 SWG GI wire as fish wire etc. complete asrequired and as directed by VSSC.		
22.1	20 mm dia	300	Mtrs
22.2	25 mm dia	200	Mtrs

Sl. No.	Description	Approx. Quantity	Unit
23.0	Supply and laying of following sizes of ISI marked FRLS heavy grade PVC conduits conduit concealed in wall / ceiling / column, including chipping the wall, laying the conduits plastering, finishing the surface, supply of all fixing materials and supply and drawing of 14 SWG GI wire as fish wire etc. complete as required and as directed by VSSC.		
23.1	20 mm dia	50	Mtrs
23.2	25 mm dia	40	Mtrs
24.0	Supply and fixing of Electrical grade laminated sheet:- Supply and fixing of 3 mm thick Electrical grade laminated sheet with provision for fixing switch / socket switch/socket on the existing power board/MS enclosure etc complete as required and as directed by VSSC.	2	Sq. Mtr
25.0	Providing and plastering of openings on internal surfaces of stone masonry/ brick masonry walls/ ceiling etc with cement mortar having mix ratio of cement : fine sand has 1:3 complete as required and as directed by VSSC. (For closing the opening of cable entry / DBs / pipes / junctions, etc).	5	Sq. Mtr
26.0	Retrieving of PVC / XLPE cable laid on wall / ceiling / in trench. Retrieving of the following cables laid on wall / in built in trench / above false ceiling etc. including removal of the fastening materials, chipping and rerolling of the removed cables and returning of the retrieved materials to the desired location as required and as directed by VSSC.		
26.1	2/3/3.5/4C x 2.5/4/6/10/16 Sq mm	150	Mtrs

Sl. No.	Description	Approx. Quantity	Unit
27.0	Disconnection & dismantling of wiring:- Disconnection & dismantling of surface / concealed wiring using PVC / MS conduit / casing & capping / mini trunking wiring on wall / ceiling / truss including retrieving copper / aluminium wire, complete as required and as directed by VSSC.	200	Mtrs
28.0	Disconnection and dismantling of light fittings:- The work includes disconnection & dismantling of light fittings above 5 mtr on wall / ceiling / roof truss with all accessories at all heights and returning the same to CMD store complete as required and as directed by VSSC.		
28.1	2x4"x36/40Wtube light / Mirror optics Fittings	30	Nos
28.2	Down lighter	20	Nos
29.0	Disconnection and removal of cable end joints for the following sizes of cables and returning the dismantled item to the stores complete as required and as directed by VSSC.		
29.1	4 Core, 2.5/4/6/10/16 Sq.mm size.	4	Nos
30.0	Disconnection and dismantling of following fixed on wall and returning the same to CMD store complete as required and as directed by VSSC.		
30.1	Switch board / Group sockets / SP / SPN MCB of all capacities with enclosure	15	Nos
31.0	Disconnection and dismantling of following concealed in and returning the same to CMD store complete as required and as directed by the VSSC.		
31.1	Switch board / Group sockets / SP / SPN MCB of all capacities with enclosure	12	Nos

Sl. No.	Description	Approx. Quantity	Unit
32.0	Disconnection and dismantling of following DB concealed in wall, including dismantling of UG cable, runs of mains, PVC wires, earthing etc. complete as required and as directed by VSSC		
32.1	4W TPN MCB DB	2	Nos

e) **Air-conditioning works**

Scope includes SITC of 1 nos. of 17 TR capacity air cooled ductable AC unit accessories such as isowall boxing, ducting, fire damper etc. It is proposed to provide new AC outside the auditorium and connected to existing ducting. Proposed new AC shall be operated as emergency backup using DG, during power failures. Repainting of existing air diffusers inside the auditorium shall be done. Details are as follows:

Sl. No.	Description	Quantity	Unit
1.0	<u>Air Cooled Ductable Split Air Conditioner</u> Design, Supply, Installation, Testing and Commissioning of air-cooled type ceiling suspended ductable Split air conditioners of following nominal cooling capacity with HFC-134a / 407C / 410A, comprising hermetic scroll compressors of Copeland / Danfoss , air cooled condenser unit, indoor evaporator with cooling coil of minimum 3 rows of copper coil with aluminium fins, Precoated Blue fins (anti corrosive coated) for condenser, blower and motor, the blower shall be capable of developing static pressure required for overcoming the pressure drop in supply air plenum.		

Sl. No.	Description	Quantity	Unit
	<p>The Indoor unit shall have DIDW forward curved centrifugal blower driven by suitable single / three Phase motor and shall have minimum 7mm WG static pressure, thermostat, starter for blower motor with overload relay and single phase preventer, HDPE filters, return air slots and associated refrigerant piping all housed in a sheet metal cabinet and duly painted. Entire indoor unit shall be acoustically insulated as per standard. The indoor unit should have double canvas connection at the outlets. The ADP of cooling coil shall not exceed 52°F. The noise level of indoor unit shall not exceed 60 db within 1 meter of the units.</p>		
	<p>Air cooled condenser units consisting of Compressors, condenser coil with good quality copper piping with blue fins / Hydrophilic coating on aluminum fins of adequate face area, dynamically balanced fan, fan motor of weather proof construction, starter for compressor, condenser fan, over load relay, single phase preventer all housed in a metal cabinet of robust and anticorrosive construction, with necessary refrigerant piping, etc. The unit shall be designed for ambient conditions of Trivandrum. The unit shall be designed to operate on 400V, 50 C/S, AC supply and confirm to IS:8148/76. Unit should include safety controls, overload relays, etc.</p>		
	<p>Refrigerant piping of heavy gauge hard drawn copper with suitable Nitrile rubber thermal</p>		

Sl. No.	Description	Quantity	Unit
	insulation for connecting condensing unit and indoor unit kept at an avg. distance of 10 m.		
	Refrigerant piping and cables shall run in factory fabricated cable tray of minimum 2 mm thick / PVC conduits to protect them from mechanical damage. Condensing units shall be connected to the indoor evaporator unit and the refrigerant piping should include necessary service valves for isolation of refrigerant lines.		
	<p>The ductable Split unit shall be provided with microprocessor based control system with corded remote and fully automatic in operation. Auto restart after resumption of power supply in case of power failures shall be an inbuilt feature of Split A/C unit. Display of parameters like room temperature, status of split unit, fault / trip indication shall be provided with split A/C unit.</p> <p>Make: Voltas / Blue Star / Carrier / Daikin / Hitachi / Panasonic</p>		
	<p><u>Connected Electrical Works:</u></p> <p>Providing the controls, contactors, OLR, SPP, Thermostat, control switch, MCBs for AC units etc and shall be housed in a separate factory fabricated control panel cabinet. With adequate size and suitable for accomodating MCB for incomer & AC units. The unit shall be located in the wall near to the indoor unit as directed by VSSC. The incoming power & control cabling, earthing between all equipments and</p>		

Sl. No.	Description	Quantity	Unit
	control panel shall be included in the scope of AC vendors.		
	<p><u>Note:</u> Electrical power shall be taken from the isolator provided by the Dept. at a distance approx 8M.</p> <p>The rate quoted by the contractor for AC unit shall be inclusive of the above Electrical work.</p>		
1.1	17 TR Nominal capacity Ductable AC unit with multiple compressors . (51000 Kcal/hr, Air quantity - 6800 cfm minimum)	1	N.
2.0	<p><u>Motorised Unit control dampers with Actuators</u> Motorized unit dampers with actuators complete with accessories like power and control cabling, etc. One damper shall be installed in the in supply air path of unit mouth and other one on main duct feeding from AHU as per the drawing. Dampers shall be made out of Aluminium. Control wiring is to make motorized damper in the SA path of the unit mouth in close position and the other damper at main duct in open position while the ductable unit is not operational and vice versa. Necessary modification in ducting to interconnect with damper & Duct plenum etc. included in the scope of work, as required and as directed by VSSC.</p>	2	Nos.

Sl. No.	Description	Quantity	Unit
3.0	<p><u>Sheet Metal Works</u></p> <p>Supply, fabricate, handle and erect GSS ducting grade 120 GSM confirming to latest IS:655 & 277 complete with dampers supporting arrangements ie. tab hangers, anchor fasteners, vanes, access door frame work etc. for plenum, ducts, opening & closing the wall openings after erecting of duct etc complete as required and as indicated below</p> <p>Make: Sail / Tisco / Jindal / I spot</p>		
3.1	0.80 mm GSS ducting	10	Sq.m
4.0	<p><u>SA Fire dampers</u></p> <p>Provision of Fire dampers in supply air path of conditioned air in all the A/C areas. Fire dampers shall be spring actuated on melting of fusible link having a melting point of $67\pm 3^{\circ}\text{C}$ & complete as required. It shall be tested as per UL 555 and certified by CBRI</p> <p>Make: Carry air / Air master / Revistar / Tristar</p>	0.65	Sq.m
5.0	<p><u>Fresh air intake louvers</u></p> <p>Fresh air intake louvers made out of extruded aluminum with bird/insect screen provided with intake louvers. The lowest louvers of the assembly shall extend out slightly to facilitate disposal of rain water without falling on the door / wall on which it is mounted and complete with all aluminum made volume control dampers.</p> <p>Size:400x300 mm</p>	1	No.

Sl. No.	Description	Quantity	Unit
6.0	<p><u>Pre fabricated PUF insulated sandwich panels</u> Supply and fixing of prefabricated rigid polyurethane foam (PUF) for making boxing for evaporator unit & supply air duct of the ductable split AC system. The boxing shall be made out of sandwich panel of 50 mm thick PUF insulation (Nominal density 35 kg/m³), both sides of the panel shall be laminated with 0.50 mm thick galvanized steel sheet coated with polyester paint with strippable polythene sheet. The boxing work shall be executed at site as a modular unit making use of pre fabricated / factory fabricated fixing arrangements.</p>	18	Sq.m
	<p>The pre- fabricated fixing arrangement shall have sufficient thickness powder coated angle frame work, fixing screws, angle fasteners for fixing at ceiling / walls etc. The panels shall suitably fixed to the frame work so that it can be removed if required for any future maintenance work. The fixing frame shall have sufficient thickness & stiffness.</p>		
	<p>Provide fresh air openings (size 300 x 300 mm) with FA grills for units and brass hinged inspection doors and aluminium tower bolt for regular service and maintenance work. All the joints shall be sealed with silicon sealant., etc. complete as required and as directed by VSSC.</p> <p>Make: Beardsell / Lloyd insulation</p>		

Sl. No.	Description	Quantity	Unit
7.0	<p><u>Duct Acoustic Insulation</u></p> <p>Acoustic insulation of plenum/supply air ducting with 13 mm thick processed elastomeric open cell class 'O' type Nitrile rubber insulation material having a density of 140 - 180 Kg / cu. mtr. It shall be flame and fire retardant and shall have low thermal conductivity. The insulation shall be fixed with suitable fire retardant adhesive and it shall be fixed using nut & bolt with Aluminium washers at an intervals of maximum 600mm and as per duct size. The whole work shall be carried out as per the instruction of VSSC.</p> <p>Make : Aeroflex / Armaflex / Vidoflex / Superlon / Supreme</p>	10	Sq.m
8.0	<p><u>Painting</u></p> <p>Painting of all equipments, piping work supports, outside area of ducts & other accessories like duct flanges etc indicated in this BOQ with primer & two coats of epoxy paint of approved color & shade as directed by VSSC.</p>	1	Lot
9.0	<p><u>Civil Work</u> Minor civil works like brick/ PCC pedestals/ Mounting bracket with for condensing unit, C channels for indoor and isowall box, cut away & making good of openings for running refrigerant pipes, ducts etc. in walls/ floors/ ceilings/trenches where ever required etc. The scope of work also includes duct modification works for the installation of motorized unit control dampers in the existing duct, complete as required and as directed by VSSC.</p>	1	Lot

f) Audio visual unit and TV

Supply and installation of audio and visual systems as follows:

SI No	Description	Quantity	Unit
Projection System			
1	8400Lumens WUXGA(1920x1200) Laser Projector with Ultra short throw lens ; 1 chip DLP, Illumination : Solid state (laser phosphor)	4	Nos
2	Ceiling mount	3	Nos
3	Screen size 32 feet X 9 feet	1	Set
Interactive display			
1	75inch Interactive Display on Stage, Interface : HDMI (3), RGB / Audio In,RS232C In, RJ45,USB 2.0 (3, Front : 2ea, Bottom side: 1ea Only for software update), USB 3.0 (3), Touch Out(USB2.0,B Type) (2),HDMI (1), Optical Output / Audio Out	1	Nos
Displays			
1	86inch LED Display on rear wall and Entrance lobby Specification: Screen diagonal Size: 218.44cm (86) Backlight Type:Trident Resolution: 3,840 x 2,160 (4K UHD) Brightness (cd/m ²) : 500 Viewing Angle Degree : 178 x 178	4	Nos

SI No	Description	Quantity	Unit
2	55inch Display in front of the stage Specification: Screen diagonal Size: 139.7cm (55) Backlight Type:Trident Resolution: 3,840 x 2,160 (4K UHD) Brightness (cd/m²) : 500 Viewing Angle Degree : 178 x 178	4	Nos
D:	Camera System		
1	4K PTZ Camera with HDMI and LAN video Output	6	Nos
2	Remote camera control	1	Nos
3	8-CH HD/SD Digital Video Switcher with CG interface Support	1	Nos
4	Video Recorder Time code & Audio Interface. SDI/HDMI outputs. Support up to 120Mbps I-frame recording, 4:2:2 sampling record MOV/ MXF file format. *c/w 2xHE-1 1TB Media Cartridge. (support 10 to 40 hours HD/SD recording time).	1	Nos
E:	Video Streaming		
1	Video streamer(H-264), 3G/HD/SD SDI to HDMI Converter, 3G SDI/HDMI/VGA Up/Down/ Cross Converter	1	Set
F:	Edge blending / Switching system		
1	Edge blending video processor with 8 Input and 6 Output and with USB Camera calibration	1	Set

SI No	Description	Quantity	Unit
G:	Interface		
1	4K60 4:2:0 HDMI & VGA Wall-Plate Auto Switcher	1	Set
2	4K60 4:2:0 HDMI HDCP 2.2 Receiver with RS-232 & IR over Long-Reach HDBaseT	12	Nos
3	4K60 4:2:4 HDMI HDCP 2.2 Transmitter with RS-232 & IR over Long-Reach HDBaseT	12	Nos
4	Converters	1	set
	Audio System		
1	48 Channel Digital mixer console	1	nos
2	22 Channel Analog Multipurpose Mixer with FX for Live Sound and Recordin	1	nos
3	Speaker system Speakers, sub-woofers, stage monitors	1	set
4	Amplifiers	1	set
5	Dolby Atmos/ Surrounded System	1	set
	Control System		
1	Control Processor with Apple IPAD/ Crestron	1	nos
	Accessories and Cables		
1	Equipment rack	2	nos
2	Cat 6 shielded cable	600	mtrs
3	HDMI, VGA, Audio, Speaker cables	1	lot

g) Podium

Supply podium made up of Teakwood with Melammine polish, fix heavy duty castor to move the podium and height adjustable system finishes with necessary teakwood beeding and hardware. No. of units – 2.

h) Carpet

Option 1:

Supply and fixing of Fire retardant tile carpet (500 x 500mm) 100% Nylon (12mm thickness)

Option 2:

Supply of roll carpet, machine made solution dyed Nylon Graphic tile carpet of finished loop pile weight of 36 oz per square yard, hot water treated with Fire proof carpet.

Quantity : Approx. 1500 sq. m

7 PRE-BID MEETING

Interested Contractors shall visit VSSC for the pre-bid discussion and to assess the quantum of works, before submitting the offer. **Participation in the pre-bid meeting and site assessment are the mandatory criteria for short-listing.** Offers of those Contractors who does not attend the pre-bid meeting and site assessment will be summarily rejected.

8 DESPATCH AND DELIVERY INSTRUCTIONS FOR MAJOR ITEMS

- a) All major equipment shall be dispatched only after clearance in writing from VSSC. Department officials may visit Contractor's site for pre-delivery inspection.
- b) Contractor shall deliver the items at VSSC, Trivandrum and shall take care to provide necessary fixtures / containers, etc. to avoid any damage to the equipments in transit, loading and unloading. Any damage found in transit shall be to the account of the supplier.
- c) All the items shall be supplied with suitable supports for storage and transportation.

9 INSTALLATION AND COMMISSIONING

- a) The Contractor shall carry out the installation and commissioning of all the items and associated works as described in this document.
- b) Contractor shall demonstrate smooth functioning of the units.
- c) Successful completion of works by the Contractor and acceptance by VSSC is termed as the commissioning date for the project.

10 REVIEW METHODOLOGY

The technical and status reviews of the project will be done periodically by an expert committee of VSSC/ISRO. The Contractor shall attend the meeting, whenever requested, with all the necessary drawings, documents, reports, status updates, etc. Recommendations and decisions made by the committee at every stage of review shall be final and accepted by the contractor.

11 DOCUMENTATION CONTROL

The Contractor shall establish and operate a well defined documentation service to fulfill the documentation requirements for this project. Such service shall be capable of immediately retrieving current information in all aspects of the performance of this contract, reproducing material and forwarding it to ISRO.

12 COMMERCIAL CONDITIONS

12.1 GUARANTEE

12.1.1 Equipment Warranty

All the major equipment shall be guaranteed for trouble free operation for a period of 12 months from the date of commissioning against any manufacturing defects / inferior material quality / faulty workmanship.

12.1.2 Performance Guarantee

The Contractor shall carryout the integrated Performance Test of the items/ works executed by them at their own expenses. They shall furnish bank guarantee from a nationalized bank for 10% of the basic order value for the performance of the facility valid till the end of guarantee period, beyond 2 months from date of expiry of warranty.

12.2 DELIVERY SCHEDULE

The total duration of entire scope of work up to the installation and commissioning of the facility shall be 10 months from the date of receipt of purchase order from VSSC.

Schedule split-Up

- a) Immediately on receipt of Purchase Order from VSSC, the Contractor shall submit all the relevant drawings and documents within 1 month.
- b) Supply of all major equipments/ items within 5 months from approval of drawings and clearance by VSSC.
- c) Supply of balance items, installation and commissioning within 4 months from the date of supply of major items.

The contractor shall indicate in their offer, the schedules for various work phases and all of them when put together shall not exceed the overall project duration. The project management plan shall include detailed schedule chart depicting clearly the interfaces between various systems. Upon award of contract and before commencement of work, the contractor shall prepare a detailed MASTER PERT CHART which will be reviewed and approved by VSSC.

12.3 PAYMENT TERMS

Payment will be made within 30 days from the date of successful completion of renovations works and handing over to VSSC.

12.4 LIQUIDATED DAMAGES

The time for and the delivery/completion period as agreed and stipulated in the Contract/Purchase Order shall be deemed to be the essence of the Contract and delivery/commissioning must be completed not later than the date specified therein as otherwise VSSC shall have the right to recover a sum @ 0.5% of order value for each week or part of a week during which the delivery of the equipment in whole or part remain undelivered/commissioning remains incomplete, subject to force majeure, with a maximum ceiling of 10% of order/contract value.

13 GENERAL TERMS AND CONDITIONS

i Eligibility criteria:

- a. The bidder shall be a reputed firm with minimum 5 years of experience in auditorium/ cinema theatre related works. Offer shall be supported with documentary evidence for similar purchase orders/ contracts with value exceeding Rs 2 crore in the past 5 years.
- b. Order details with contact details of the customers (min. 2 nos.) shall be provided for a probable visit by VSSC team.
- c. The Bidder must provide letters of Reference from minimum two clients where they have executed similar works, stating the scope of work in brief, the year of completion and with customer satisfaction letter.
- d. Turnover and balance sheet for the last three years shall be provided.
- e. Company profile detailing technical manpower shall be provided. A brief write up on the quality department existing in the company, total no. of staff, in-house capabilities in executing this auditorium renovation work, details of items/works which will be outsourced in this contract, etc.
- f. The Bidder must ensure themselves that they fulfill the eligibility criteria mentioned above before submitting the offer.

- ii The entire work is to be executed on a TURNKEY basis by the contractor and handed over to VSSC in fully operational condition.
- iii The contractor is wholly responsible for renovation of VRC Auditorium as per the guidelines given by VSSC.
- iv As part of bid evaluation, VSSC reserves the right to visit the bidders site and/ or their customers site, for which necessary co-ordination shall be extended by the bidder.
- v Department shall provide electrical connections to individual items. However any unanticipated minor electrical works (if required) will be under the scope of the contractor.
- vi The contractor shall provide detailed specifications and drawings/ documents/ layout pertain to this project, before commencement of the work.
- vii The respective works have to be started only after the approval of the above documents by VSSC.
- viii The contractor shall indicate if they intend to give sub contract to a third Contractor for any of the work. The Contractor shall submit the details of the third Contractor and details of the contract and obtain VSSC's approval before finalizing the contract.
- ix The responsibility of hiring necessary workforce, tools, transport, loading and unloading of equipments for the total work lies within the contractor.
- x VSSC intends to evaluate proposals and conclude contract without discussions with the Contractor. Therefore, the Contractor's initial proposal should contain the Contractor's best terms without any ambiguity from a technical, commercial and price standpoint. VSSC reserves the right to conduct discussions if VSSC later determines them to be necessary.
- xi VSSC reserves the right to make multiple contracts if, after considering the additional administrative costs, it is in the Department's best interest to do so.
- xii Make/Model should be specifically mentioned in the offer. Authorized Dealership Certificate should be sent along with the offer.
- xiii Confirm Minimum 90 DAYS OFFER VALIDITY FROM THE DATE OF TENDER OPENING without which your offer will not be considered.
- xiv Please specify percentage of GST along with GST registration number separately for each item/service.
- xv Charges for AMC, beyond warranty period shall be quoted separately for each item. Department reserves the right to place the PO for AMC along with main purchase order or separately issue the PO for AMC in future.

xvi If any forged or false documents are submitted along with the tender, such tender will be summarily rejected and you will be black listed for all future tenders.

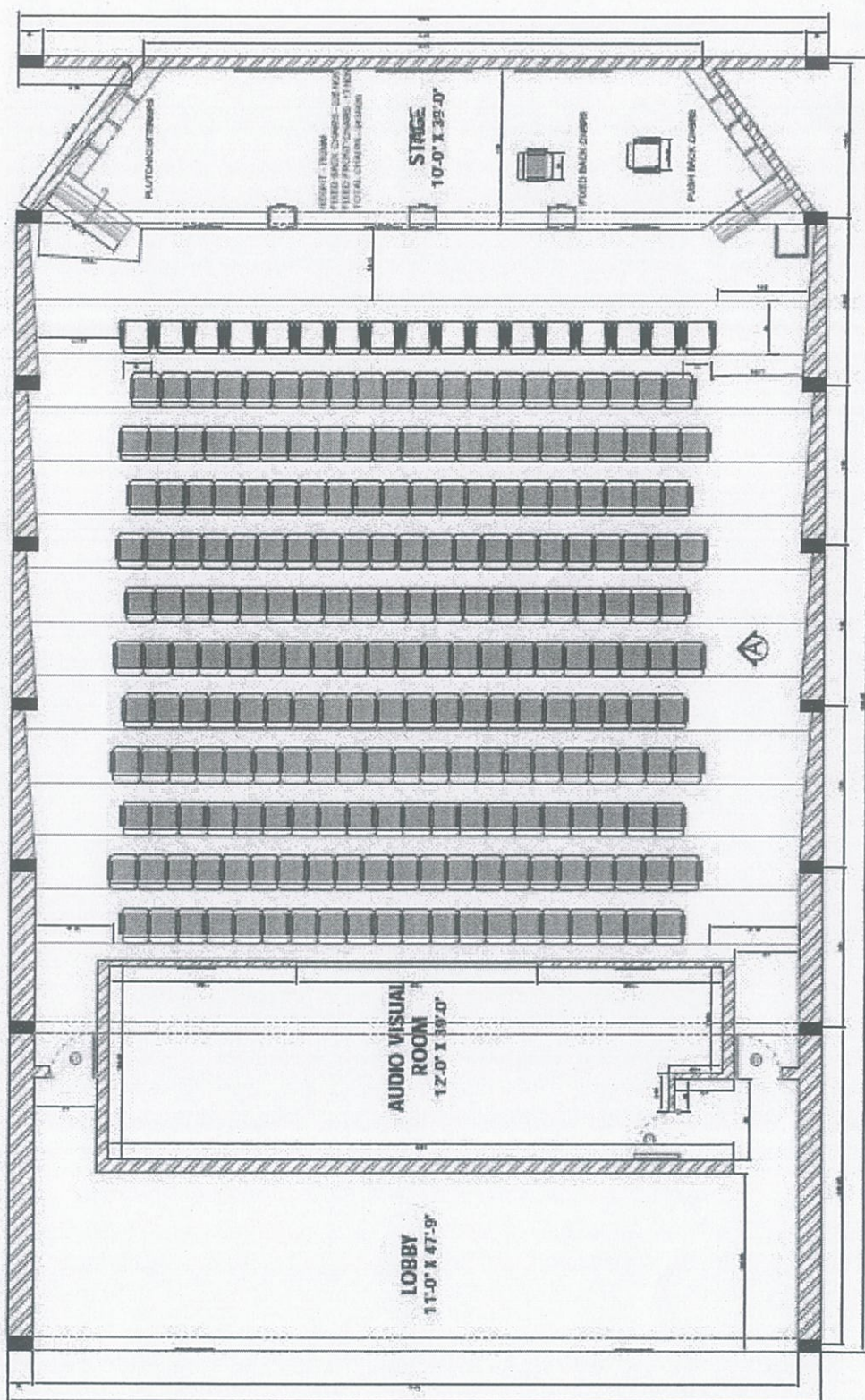
xvii Security Deposit: - In case of an order, Contractor have to submit an interest free security deposit equivalent to 10% of the Annual contract value in the form of Fixed Deposit Receipt (FDR) or Bank Guarantee which will be refunded after due performance of this Contract or shall be adjusted/forfeited against any dues.

xviii Force Majeure:- In case completion of job is delayed by any circumstances such as acts of god, sabotages, civil commotion, riots, insurrections, revolution, blockades, earthquakes, fire, floods, lightening, storms, or other natural events over which we do not have control, the contractor shall give notice within 15 days to the purchaser in writing of his claim for an extension of time. The purchaser on receipt of such notice after verification if necessary may agree to extend the contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract.

xix Arbitration:- In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the good Offices of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the Sole Arbitrator appointed by the Parties by mutual consent in accordance with the rules and procedures of Arbitration and Conciliation Act 1996 as amended from time to time. The arbitration shall be conducted in Bengaluru in the Arbitration and Conciliation Centre – Bengaluru (Domestic and International) as per its rules and regulations. The expenses for the Arbitration shall be shared equally or as may be determined by the Arbitrator. The considered and written decision of the Arbitrator shall be final and binding between the Parties. The applicable language for Arbitration shall be "English" only.

xx Work under the Contract shall be continued by the Contractor during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the Arbitrator unless otherwise directed in writing by the Department or unless the matter is such that the works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained.

Sketch of VRC auditorium layout at VSSC, Trivandrum



LIST OF APPROVED MAKES FOR ELECTRICAL WORKS W.E.F. 20-09-2019

Sl. No.	Sub- Sl. No.	Items/ Products	Name of Brand / Make					
1		Automatic Transfer Switch (ATS)	VERTIV GE	APC L&I	RIELLO	PILLER	EPI	SOCOMEQ
2		Automatic Voltage Regulators (AVR) / Servo-Controlled Voltage Stabilizers (SCVS)	AUTOMATIC ELECTRIC (AE)	KRYKARD				
3		BATTERIES						
	a	Batteries: SMF	EXIDE	AMCO	PANASONIC	AMARA RAJA	SONNENSCHIN	
	b	Batteries: Non-SMF	EXIDE	AMCO	PANASONIC	AMARA RAJA		
4		CABLES, END TERMINATIONS & ACCESSORIES						
	a	Armoured HT Power Cable (PVC & XLPE)	UNISTAR TORRENT	GLOSTER KEI	POLYCAB FINOLEX	HAVELLS	RPG	CCI
	b	Armoured LT Power Cable (PVC & XLPE)	UNISTAR TORRENT VICCO RALLISON CORDS CABLE	GLOSTER KEI SINCO AVOCAB INSUCON	POLYCAB FINOLEX TERA CRYSTAL CABLES	HAVELLS RHINO THERMO CABLES ELKAY	RPG RAVIN UNICAB GEMSCAB	CCI BONLON V-GUARD INDOCAB
	c	Armoured/Unarmoured Control Cable (PVC & XLPE), Special Purpose Cables & Instrumentation Cable	LAPP INDIA CCI	GLOSTER TORRENT	POLYCAB FINOLEX	HAVELLS RALLISON	UNISTAR ADVANCE CABLES	RPG
	d	Armoured/Unarmoured Telephone Cable	POLYCAB THERMO CABLES	HAVELLS ELKAY	RPG ADVANCE CABLE	FINOLEX VICCO	UNICAB LAPP INDIA	V-GUARD
	e	PVC Wires (FRLS/ FRLSH / FR-ZH / FR-HR)	LAPP INDIA POLYCAB V-GUARD	FINOLEX STANDARD RR-KABEL	GLOSTER RALLISON AVOCAB	ANCHOR Q-FLEX KEI	KUNDAN CAB RHINO	DARSHAN PLUS RAJNIGANDHA CABLE
	f	Cable Jointing Kits : Heat / Cold Shrinkable Type (HT & LT)	RAYCHEM	M-SEAL (3M)	MULTI PRESSINGS	GEE SEAL	DENSON	
	g	Cable Trays (FRP, Hot Dip GI / Electro Galvanised) (Perforated / Ladder / Wire Mesh)	SINTEX INDIANA	L&T PATNY SYSTEMS	PROFAB MUPRO	CABLOFIL (LEGRAND)	OBO BETTERMANN	SUMIP COMPOSITES
5		Cable Management System (CMS) & Underfloor Raceways	OBO BETTERMANN	LEGRAND	MK	CENTAUR	EUBIQ	
6		DG SETS & CONTROLLER						
	a	Diesel Engine for DG Sets	CUMMINS EICHER (Upto 125kVA)	PERKINS	VOLVO PENTA	CATERPILLER	MTU	MAITSUBISHI
	b	LT Alternators for DG Sets	STAMFORD-AVK	LEROY SOMER	CROMPTON GREAVES			

Sl. No.	Sub-Sl. No.	Items/ Products	Name of Brand / Make					
	c	HT Alternators for DG Sets	STAMFORD-AVK	TDPS	LEROY SOMER	CROMPTON GREAVES		
	d	DG Set Controller for Synchronising Panel	WOODWARD	BERNINI	DEIF	DEEPSEA ELECTRONICS (DSE)		
7	EARTHING, LIGHTNING PROTECTION & ACCESSORIES							
	a	Maintenance-free earthing kit with solid earth electrode & Earth Enhancing Compound	OBO BETTERMANN CAPE ELECTRIC	TEREC (SGI)	ERICO (GEM)	LORESS	ASHLOK	JMV LPS
	b	Lightning Protection Accessories	DEHN	ERICO	OBO BETTERMANN	CAPE ELECTRIC		
	c	Exothermic Welding	OBO BETTERMANN	ERICO (GEM)	CAPE ELECTRIC	JMV LPS		
8	ELECTRICAL BUS DUCTS / BUSBAR TRUNKING SYSTEM							
	a	Air Insulated Electrical Bus Ducts	ALL APPROVED LT PANEL MANUFACTURERS					
	b	Sandwiched Busbar Trunking System	SCHNEIDER	LEGRAND	GE ENERGY	L&T	C&S ELECTRIC	
9	FANS							
	a	Ceiling Fans (Star Rated)	USHA CROMPTON GREAVES	ORIENT	KHAITAN	BAJAJ	HAVELLS	RALLIFAN
	b	BLDC Ceiling Fans	VERSA DRIVES (SUPERFAN)	USHA	ORIENT	ATOMBERG (GORILLA)	HAVELLS	
	c	Wall mounted / Pedestal Fans	USHA CROMPTON GREAVES	ORIENT	KHAITAN	BAJAJ	HAVELLS	RALLIFAN
	d	Air Circulator Fans	ALMONARD	KHAITAN	EPC	BAJAJ	CROMPTON GREAVES	
	e	Exhaust Fans	USHA ORIENT	KHAITAN CATA	POLAR	EPC	CROMPTON GREAVES	V-GUARD
10	FLAMEPROOF (FLP) LIGHTS & SWITCHGEARS							
	a	Flameproof Luminaires (Including LED) & Controlgears	BALIGA	FCG	STAHL	FLEXPRO	BAJAJ LIGHTING	SUDHIR SWITCHGEAR
	b	Flameproof Switchgear & Accessories	BALIGA	FCG	STAHL	FLEXPRO	SUDHIR SWITCHGEAR	
11	FIRE ALARM & DETECTION SYSTEMS							
	a	Fire Alarm/Smoke Detection System & Control Panels (FACP) & Aspiration System	RAVEL SIEMENS GST (UTC)	SECUTRON ZITON SCHRACK SECONET	HONEYWELL EDWARD FFE LTD.	HOCHIKI TELEFIRE SECURITON	NOTIFIER SIMPLEX GODREJ & BOYCE	MORLEY (HONEYWELL) THORN SECURITY
	b	Flame proof Detection system	FFE LTD.					
	c	Gas Detectors, Gas Monitoring System	SUBTRONICS	CROWCON	AMBETRONICS			
	d	Linear Heat Sensing Cable (LHSC)	SECURITON	HONEYWELL	PATOL	SYSTEM SENSOR		

Sl. No.	Sub- Sl. No.	Items/ Products	Name of Brand / Make						
12	FIRE PROTECTION SYSTEM								
	a	Fire Resistant Coating (FRC)	VIPER	STANVAC	HILTI				
	b	Fire Stop Products	3M	HILTI	OBO BETTERMANN				
13	Geysers (Star Rated)		AO SMITH	JAQUAR	RACOLD	V-GUARD	VENUS	USHA	
			JOHNSON	REMSON	CROMPTON GREAVES				
14	HRC FUSE & CARRIERS								
	a	HRC Fuses	L&T	SIEMENS	GE POWER CONTROLS	C&S ELECTRIC	HAVELLS	INDO ASIAN	
			CROMPTON GREAVES	STANDARD					
	b	HRC Fuse Base & Carriers	L&T	SIEMENS	ABB	GE POWER CONTROLS	HAVELLS	STANDARD	
			SCHNEIDER						
15	HT 11kV Panel with Vacuum Circuit Breakers (VCBs)		SCHNEIDER	L&T	ABB	SIEMENS	EASUN REYROLLE	ANDREW YULE	
			MEI	BHEL	CROMPTON GREAVES				
16	HDPE Double Walled Corrugated Pipes (for UG Cables)		GAMSON	DURA-LINE	REX POLYEXTRUSIONS				
17	Junction Box / Switch box & Distribution Boards (Thermoplastic/Polycarbonate/FRP / GRP/ SMC / Steel)		HENSEL	SPELSBERG	BCH-ELECTRIC	ABB	PYROTECH ELECTRONICS	DEVI POLYMER	
			PUSTRON	SAFYBOX	SINTEX	FIBOX			
18	LIGHT FIXTURES & ACCESSORIES								
	a	Light fittings (Indoor)#	PHILIPS	OSRAM	ENDO LIGHTING	IGUZZINI	HYBEC LIGHTING	LIGHTING TECHNOLOGIES	
			WIPRO	TRILUX	BAJAJ	SURYA	HAVELLS	CROMPTON GREAVES	
	b	Light fittings (Outdoor applications only)#	PHILIPS	OSRAM	BAJAJ	IGUZZINI	SCHRÉDER	ENDO LIGHTING	
			WIPRO	TRILUX	K-LITE	SURYA	HAVELLS	LIGHTING TECHNOLOGIES	
			DISANO	CROMPTON GREAVES	HYBEC LIGHTING				
			# LEDs SHALL BE OF NICHIA, CREE, OSRAM, PHILIPS LUMILEDS, CITIZEN & SEOUL SEMICONDUCTORS MAKE ONLY						
	c	Solar Street light (Standalone)	PHILIPS	BAJAJ	TATA POWER	ANY MNRE APPROVED VENDOR IN CURRENT YEAR			
	d	Emergency Light Fittings with self-contained Batteries	PHILIPS	EVEREADY	WIPRO				
	e	Lamps, Controlgears & Accessories	PHILIPS	OSRAM	WIPRO	SURYA	BAJAJ	HAVELLS	
			CROMPTON GREAVES	MEANWELL	BAG ELECTRONICS				

Sl. No.	Sub- Sl. No.	Items/ Products	Name of Brand / Make						
19	LIGHTING MANAGEMENT SYSTEM & CONTROL								
	a	Lighting Management System	SCHNEIDER	LUTRON	PHILIPS	HONEYWELL	WIPRO	DELTA CONTROL	
			LEGRAND						
	b	Lighting Control Sensor	HONEYWELL	SCHNEIDER	LUTRON	WIPRO	PHILIPS	LEGRAND	
			HAGER						
20	LT Power Capacitors		SCHNEIDER	EPCOS	L&T	UNISTAR	SIEMENS	ABB	
			VISHAY SPRAGUE						
21	LT SWITCHGEARS / BREAKERS								
	a	Miniature Circuit Breakers (MCBs) & Distribution Boards	LEGRAND	SCHNEIDER	ABB	GE	INDO ASIAN	SIEMENS	
			L&T	HAVELLS	HPL	STANDARD	HAGER	C&S ELECTRIC	
	b	Earth Leakage Circuit Breakers (RCBO/RCCBs)	LEGRAND	SCHNEIDER	ABB	GE	L&T	INDO ASIAN	
			SIEMENS	HAVELLS	HPL	STANDARD	HAGER	C&S ELECTRIC	
	c	Moulded Case Circuit Breakers (MCCBs) up to 400A	SCHNEIDER	L&T	LEGRAND	HAVELLS	STANDARD	C&S ELECTRIC	
			ABB	SIEMENS					
	d	Moulded Case Circuit Breakers of all ratings	SCHNEIDER	L&T	ABB	LEGRAND	SIEMENS	GE	
	e	LT Air Circuit Breaker (ACB)	SCHNEIDER	L&T	ABB	SIEMENS	GE	C&S ELECTRIC	
			LEGRAND						
	f	Changeover Switches	L&T	SIEMENS	SCHNEIDER	HPL	GE POWER CONTROLS	INDO-ASIAN	
			C&S ELECTRIC	STANDARD	HAVELLS				
	g	MV Switch fuse units & Isolators up to 250A	L&T	SIEMENS	ABB	HPL	INDO-ASIAN	GE POWER CONTROLS	
			C&S ELECTRIC	HAVELLS	SCHNEIDER	STANDARD			
	h	MV Switch Fuse Units & Isolators of all ratings	L&T	SIEMENS	ABB	SCHNEIDER	GE POWER CONTROLS		
	i	Air-break Power / Control Contactors	L&T	ABB	C&S ELECTRIC	SIEMENS	CROMPTON GREAVES	BCH-ELECTRIC	
			GE	SCHNEIDER					
22	MEASURING INSTRUMENTS								
	a	Measuring Instruments (Analog & Digital meters, Data Loggers & Event Recorders)	L&T	SCHNEIDER	MECO	NEUTRONICS	NIPPEN	SATEC	
			ELMEASURE	RISHAB	KRYKARD	CIRCUTOR	AUTOMATIC ELECTRIC (AE)	SECURE	
	b	Single & Three phase Energy Meters	SCHNEIDER	L&T	LEGRAND	CAPITAL POWER SYSTEMS	SATEC	SECURE	
			SIEMENS	ECE	PROK DV's	CIRCUTOR	NIPPEN	THEBEN	

Sl. No.	Sub- Sl. No.	Items/ Products	Name of Brand / Make					
23	MOTORS & STARTERS / DRIVES							
	a	Electric Motors	ABB	GE	SIEMENS	KIRLOSKAR	CROMPTON GREAVES	JYOTI
			BHARAT BIJLEE	NGEF	LAXMI HYDRAULICS (LHP)			
	b	Starters	L&T	ABB	SIEMENS	SCHNEIDER	BCH-ELECTRIC	GE POWER CONTROLS
			CROMPTON CONTROLS					
	c	Soft Starters	ABB	SCHNEIDER	ALLEN-BRADLEY	CROMPTON CONTROLS	SIEMENS	
	d	Variable Speed Drives	ABB	SIEMENS	SCHNEIDER	DANFOSS	NELCO	LANDIS & STAEFA
HITACHI			VERTIV	L&T	YASKAWA			
24	POLES							
	a	Streetlight Pole (Decorative/Special)	BAJAJ	K-LITE	TRANSRAIL LIGHTING			
	b	FRP / GRP Type Poles	SUMIP COMPOSITES	BAJAJ				
25	Photoluminescent Signages		3M	SAFEX	PROLITE AUTOGLO	AUTOLITE		
26	Push-Button Stations, Key Actuators, Rotary Switches, Toggle Switches, Indicators, Selector Switch		TEKNIC	ABB	L&T	SIEMENS	CROMPTON GREAVES	BCH-ELECTRIC
			SCHNEIDER	KAYCEE	JAY	JAINSON	C&S ELECTRIC	GE POWER CONTROLS
			VAISHNAV					
27	RELAYS							
	a	Automatic Power factor Correction (APFC) Relay	SCHNEIDER	L&T	BELUK	PROK DV's	EPCOS	
	b	Protective Relays (Electromechanic & Numeric)	ABB	SIEMENS	L&T	JYOTI	ALIND	EASUN REYROLLE
			SCHNEIDER	C&S ELECTRIC	PROK DV's			
	c	Electronic time switch, Time delay relay, Timer	LEGRAND	L&T	HAGER	BCH-ELECTRIC	THEBEN	SIEMENS
			SCHNEIDER	GE POWER CONTROLS	ABB	HAVELLS		
28	Shock-Proof Insulation Mat & Paint		SAFEVOLT	STANVAC	ELECTROMAT	HILTI		
29	Solar Inverter / Solar Hybrid UPS		DELTA	REFUSOL	KACO	SMA	OPTIMAL POWER SYNERGY (OPS)	
30	Static Transfer Switch (STS)		VERTIV	APC	RIELLO	PILLER	EPI	SOCOMECH
			GE					
31	Surge Protection Devices (SPDs)		OBO BETTERMANN	LEGRAND	SCHNEIDER	SIEMENS	ABB	ERICO
			DEHN	RAYCAP	NOVARIS			

Sl. No.	Sub- No.	Items/ Products	Name of Brand / Make					
32	SWITCHES & SOCKETS							
	a	Modular Switches & 5A/15A Sockets	LEGRAND	ABB	CRABTREE	LITASKI	LISHA	NORTH-WEST
			STANDARD	L&T	ROMA (ANCHOR)	VEGA	FINOSWITCH (FINOLEX)	TOYAMA
			SCHNEIDER	HAGER	MK	KOLORS	SALZER	GOLDMEDAL
	b	Sockets & Plugs (with Polycarbonate/FRP/ Metal Clad Body)	ABB	MENNEKES	LEGRAND	HAVELLS	NORTH-WEST	BCH-ELECTRIC
			SCHNEIDER	HENSEL	STANDARD	CYCLO	BEST & CROMPTON	CROMPTON GREAVES
	c	Modular Electronic Fan Regulators	LEGRAND	STANDARD	CRABTREE	SALZER	LISHA	NORTH-WEST
ABB			L&T	ROMA (ANCHOR)	TOYAMA	FINOSWITCH (FINOLEX)	RIDER (ANCHOR)	
SCHNEIDER			HAGER	MK	VEGA	LITASKI	KOLORS	
GOLDMEDAL								
33	TRANSFORMERS							
	a	Transformers (Oil-cooled)	HAMMOND POWER SOLUTIONS (HPS)	SCHNEIDER	BHARAT BIJLEE	ESSENAR	ECE INDUSTRIES LTD.	KEL
			KAVIKA	CROMPTON GREAVES	VOLTAMP			
	b	Transformer (Resin Cast, Dry type)	BHEL	VOLTAMP	ABB			
	c	Transformer Oil: FR3 Natural Ester	CARGILL					
	d	LT Current/Voltage Transformer	NIPPEN	PARAS	INTRANS	KAPPA ELECTRICALS	AUTOMATIC ELECTRIC (AE)	NEUTRONICS MANUFACTURING COMPANY (NMC)
	e	HT Current /Voltage Transformer	SCHNEIDER	INTRANS	PARAS	MEI	KAPPA ELECTRICALS	AUTOMATIC ELECTRIC (AE)
			VOLTAMP	All OEMs of 11kV Vacuum Circuit Breakers				
	f	Isolation Transformers	VERTIV	PILLER	ESSENAR	SOCOMEK	APC	ECE INDUSTRIES LTD.
			RIELLO	APLAB	BHARAT BIJLEE	SCHNEIDER	AUTOMATIC ELECTRIC (AE)	VOLTAMP
			NUMERIC (LEGRAND)	PROLEC GE (INDO TECH)	ABB			
	g	Nitrogen Injection Fire Protection System (NIFPS)	CTR	EASUN MR				
34	Unitised/ Package /Compact Substation**		ABB	SCHNEIDER	SIEMENS	HAMMOND POWER SOLUTIONS (HPS)	VOLTAMP	
			**WITH APPROVED MAKES OF HT, LT BREAKERS & TRANSFORMERS					

Sl. No.	Sub- Sl. No.	Items/ Products	Name of Brand / Make					
35	UPS SYSTEM (CONVENTIONAL)							
	a	UPS (of all ratings)	VERTIV	APC	RIELLO	PILLER	EPI	SOCOMEK
	b	UPS (of rating up to 160 kVA)	VERTIV	APC	RIELLO	PILLER	EPI	SOCOMEK
			NUMERIC (LEGRAND)					
	c	UPS (of rating up to 80 kVA)	SOCOMEK	VERTIV	APC	PILLER	EPI	NUMERIC (LEGRAND)
			RIELLO	ABB	CONSUL-NEOWATT	DELTA		
	d	UPS (of rating up to 30 kVA) & Inverters	SOCOMEK	VERTIV	APC	PILLER	EPI	NUMERIC (LEGRAND)
			RIELLO	APLAB	GE	EATON	CONSUL-NEOWATT	KELTRON
			TECHSER POWER	DUBAS	HITACHI HI-REL	ABB	DELTA	
	e	UPS (of rating up to 10 kVA) & Inverters	SOCOMEK	VERTIV	APC	PILLER	EPI	NUMERIC (LEGRAND)
			RIELLO	APLAB	GE	EATON	CONSUL-NEOWATT	KELTRON
			TECHSER POWER	POWER ONE	ENERTEC	DUBAS	HITACHI HI-REL	ABB
			DELTA					
36	UPS SYSTEM (MODULAR)							
	a	Modular UPS (of rating up to 80 kVA)	VERTIV	APC	RIELLO	SOCOMEK	ABB	NUMERIC (LEGRAND)
			DELTA					
	b	Modular UPS (of all rating)	VERTIV	APC	RIELLO	SOCOMEK		

Detailed compliance matrix

Ref: Tender no. 3150 2019005065 (VRC Auditorium Renovation)

Sl. no.	Ref. Clause no. in RFP	Description	Compliance (Yes/ No)	Remarks, if any
1	1	Item/ Work : VRC Auditorium Renovation on turn-key basis		
2	2	<u>Objectives:</u> Renovation of VRC Auditorium at VSSC on turn-key basis, involves replacement of Chairs, augmentation of illumination, augmentation of air-conditioning, supply of podium, installation of stage tables, installation of audio/ visual systems and other associated works mentioned in the scope of work.		
3	3	<u>Scope of work – Contractor:</u> <ul style="list-style-type: none"> i Replacement of existing old chairs with new one and associated works. ii Epoxy flooring. iii Replacement of damaged side panels and painting. iv Supply of new height adjustable podium. v Supply and installation of detachable tables for the stage. vi Replacement of existing lighting with LED to improve 		

Authorized signatory

Sl. no.	Ref. Clause no. in RFP	Description	Compliance (Yes/ No)	Remarks, if any
		<p>the illumination and all associated works.</p> <p>vii Augmentation of Air-conditioning unit.</p> <p>viii Supply and installation of new audio/ visual systems.</p> <p>All the necessary components and accessories required for the renovation shall be under the scope of the Contractor.</p>		
4	4	<p><u>Scope of VSSC:</u></p> <p>i Electric-power:- 415V, 50Hz, 3P+N+E approx. 30 m away from the Auditorium control room.</p> <p>ii Water</p>		
5	5	<p><u>Mode of submission of offers:</u></p> <p>5.1: Unpriced Techno-commercial bid (Part-1)</p> <p>5.2: Price-bid (Part-II)</p>		
6	6	<p><u>Work description and requirements</u></p> <p>a) Chair replacement</p> <p>b) Stage - Table and chairs</p> <p>c) Civil works related to side panelling, ceiling etc.</p> <p>d) Lighting and electrical works</p> <p>e) Air-conditioning works</p>		

Sl. no.	Ref. Clause no. in RFP	Description	Compliance (Yes/ No)	Remarks, if any
		f) Audio, visual and TV g) Podium h) Carpet		
7	7	<u>Pre-bid meeting:</u> Interested Contractors shall visit VSSC for the pre-bid discussion and to assess the quantum of works, before submitting the offer. Participation in the pre-bid meeting and site assessment are the mandatory criteria for short-listing. Offers of those Contractors who does not attend the pre-bid meeting and site assessment will be summarily rejected.		
8	8	<u>Despatch and delivery instructions for major items:</u> a) All major equipment shall be dispatched only after clearance in writing from VSSC. Department officials may visit Contractor's site for pre-delivery inspection. b) Contractor shall deliver the items at VSSC, Trivandrum and shall take care to provide necessary fixtures / containers, etc. to avoid any damage to the		

Sl. no.	Ref. Clause no. in RFP	Description	Compliance (Yes/ No)	Remarks, if any
		<p>equipments in transit, loading and unloading. Any damage found in transit shall be to the account of the supplier.</p> <p>c) All the items shall be supplied with suitable supports for storage and transportation.</p>		
9	9	<p><u>Installation and commissioning:</u></p> <p>a) The Contractor shall carry out the installation and commissioning of all the items and associated works as described in this document.</p> <p>b) Contractor shall demonstrate smooth functioning of the units.</p> <p>c) Successful completion of works by the Contractor and acceptance by VSSC is termed as the commissioning date for the project.</p>		
10	10	<p><u>Review methodology:</u></p> <p>The technical and status reviews of the project will be done periodically by an expert committee of VSSC/ISRO. The Contractor shall attend the meeting, whenever requested, with</p>		

Sl. no.	Ref. Clause no. in RFP	Description	Compliance (Yes/ No)	Remarks, if any
		all the necessary drawings, documents, reports, status updates, etc. Recommendations and decisions made by the committee at every stage of review shall be final and accepted by the contractor.		
11	11	<u>Documentation control:</u> The Contractor shall establish and operate a well defined documentation service to fulfil the documentation requirements for this project. Such service shall be capable of immediately retrieving current information in all aspects of the performance of this contract, reproducing material and forwarding it to ISRO.		
12	12	<u>Commercial conditions:</u> 12.1 Guarantee <u>12.1.1 Equipment Warranty</u> All the major equipment shall be guaranteed for trouble free operation for a period of 12 months from the date of commissioning against any manufacturing defects / inferior material quality / faulty workmanship.		

Sl. no.	Ref. Clause no. in RFP	Description	Compliance (Yes/ No)	Remarks, if any
		<p><u>12.1.2 Performance Guarantee</u></p> <p>The Contractor shall carryout the integrated Performance Test of the items/ works executed by them at their own expenses. They shall furnish bank guarantee from a nationalized bank for 10% of the basic order value for the performance of the facility valid till the end of guarantee period, beyond 2 months from date of expiry of warranty.</p> <p><u>12.2 Delivery schedule</u></p> <p>The total duration of entire scope of work up to the installation and commissioning of the facility shall be 10 months from the date of receipt of purchase order from VSSC.</p> <p><u>Schedule split-Up</u></p> <p>a) Immediately on receipt of Purchase Order from VSSC, the Contractor shall submit all the relevant drawings and documents within 1 month.</p> <p>b) Supply of all major equipments/ items within 5</p>		

Sl. no.	Ref. Clause no. in RFP	Description	Compliance (Yes/ No)	Remarks, if any
		<p>months from approval of drawings and clearance by VSSC.</p> <p>c) Supply of balance items, installation and commissioning within 4 months from the date of supply of major items.</p> <p>The contractor shall indicate in their offer, the schedules for various work phases and all of them when put together shall not exceed the overall project duration. The project management plan shall include detailed schedule chart depicting clearly the interfaces between various systems. Upon award of contract and before commencement of work, the contractor shall prepare a detailed MASTER PERT CHART which will be reviewed and approved by VSSC.</p> <p>12.3 <u>Payment terms</u></p> <p>Payment will be made within 30 days from the date of successful completion of renovations works and handing over to VSSC.</p>		

Sl. no.	Ref. Clause no. in RFP	Description	Compliance (Yes/ No)	Remarks, if any
		<p>12.4 Liquidated Damages</p> <p>The time for and the delivery/completion period as agreed and stipulated in the Contract/Purchase Order shall be deemed to be the essence of the Contract and delivery/commissioning must be completed not later than the date specified therein as otherwise VSSC shall have the right to recover a sum @ 0.5% of order value for each week or part of a week during which the delivery of the equipment in whole or part remain undelivered/commissioning remains incomplete, subject to force majeure, with a maximum ceiling of 10% of order/contract value.</p>		
13	13	General terms and conditions as given in the RFP		

Instruction to Tenderers

1. Our normal payment term is "100% payment within 30 days after receipt & acceptance of the item at our site". Please confirm acceptance of the same in your offer.
2. Quotations should be submitted in **Two-Parts; Part I - Technical & Commercial Bid, Part II- Price Bid.**
 - 2.1 **Part -I, Technical & Commercial bid** should be submitted in one cover. Technical & Commercial Part should clearly indicate the technical details, scope of supply, payment terms, delivery terms & delivery period, taxes & duties etc under separate Heads. ***Please note that the Price should not indicate in the Technical & Commercial Offer.*** The cover should clearly subscribe "Technical & Commercial Bid". The Tender No., due date & time should be indicated on the cover.
 - 2.2 **Part-II, Price Bid** should be in one cover. Price alone should be indicated. The cover should be clearly super scribed "Price Bid". The Tender No., Due date & time should also be indicated on the cover.
3. The Technical & Commercial bid and the Price Bid has to be enclosed in separate sealed covers and they should be put into a single envelope super scribed with the tender No., Due date & time.
4. In order to avail of the benefits extended to Micro and Small Enterprises, Vendors are requested to submit Entrepreneur Memorandum Part - II signed by General Manager, District Industries Centre or NSIC registration details.
5. In case of regret, please send us a letter to that effect.
6. ***Fax/email quotations will not be considered.*** Please send your quotations well in advance by speed post and should reach us before the due date & time. Department will not be responsible for any postal delay.

EARNEST MONEY DEPOSIT / BID SECURITY:

1. Earnest Money Deposit (EMD) or Bid Security is obtained to ensure the earnestness of the vendor in the procurement process. Registered Vendors of VSSC shall not furnish EMD or Bid Security in the procurement process. Other Vendors participating in the tender process has to furnish EMD through Demand Draft/Banker's Cheque for **Rs. 5,00,000/- (Rupees Five Lakh Only)** drawn in favour of **Accounts Officer, Centre Accounts, VSSC-Trivandrum** payable at State Bank of India, Thumba Branch. EMD shall be interest free. EMD shall also be furnished in the form of Fixed Deposit Receipts or Bank Guarantee from any of the Scheduled Banks executed on non-judicial stamp paper of value Rs.200/-. In case of Bank Guarantee, it shall be valid for a period of 45 days beyond the final tender validity date.
2. Also, Foreign Vendors, Registered Vendors who have already applied for renewal of registration, Central PSUs, PSEs, Autonomous Bodies, Micro and Small Enterprises, KVIC, National Small Industries Corporation etc., are exempted from the payment of EMD.
3. Any tender not accompanied with EMD shall be treated as invalid tender and rejected. Vendors seeking exemption from payment of EMD shall submit necessary proof like registration number etc.
4. EMD of vendor shall be forfeited if the tenderer/contractor withdraws or amends his tender or deviates from the tender in any respect within the period of the validity of the tender. Failure to furnish Security Deposit/Performance Bond by a successful vendor within the specified period shall also result in forfeiture of EMD.
5. EMD shall be refunded to all the unsuccessful vendors within thirty days after placement of the Purchase Order. EMD shall be refunded to the successful tenderer / contractor after payment of the Security Deposit. EMD shall be refunded to all the participants in cases where the tender is cancelled or withdrawn by the Centre/Unit, within thirty days from the date of such cancellation or withdrawal.

भारत सरकार
अंतरिक्ष विभाग (अं.वि.)
विक्रम साराभाई अन्तरिक्ष केन्द्र
तिरुवनन्तपुरम -695022
क्रय एवं भंडार



GOVERNMENT OF INDIA
DEPARTMENT OF SPACE (DOS)
VIKRAM SARABHAI SPACE CENTRE
THIRUVANANTHAPURAM 695022
PURCHASE UNIT-V,MME,RFF AREA
Ph No. 0471-2562831,3611,3577,3327 Fax. 0471-2562021
e-mail :ps_lalukumari@vssc.gov.in

निविदा आमंत्रण
INVITATION TO TENDER

मैसर्स
M/s

00000

हमारी संदर्भ सं

Our Ref. No. 6022 2019-005493-01

निविदा अंतिम तिथि

Tender Due at 1600 hrs IST on 14/01/2020

महोदय

Dear Sirs,

कृपया निम्नलिखित मदों की आपूर्ति के लिए अनुलग्नक (फार्म सं. संलग्न) में उल्लिखित निबंधन एवं शर्तों के अनुसार संलग्न निविदा प्रपत्र में वर्णनात्मक सूचीपत्र/पैम्फलेट/साहित्य सहित हमारी संदर्भ सं. एवं अंतिम तिथि (मोटे अक्षरों में) ऊपर लिखते हुए अपनी मुहरबंद निविदा प्रस्तुत करें।

Please submit your sealed quotation, in the Tender Form enclosed here along with the descriptive catalogues /pamphlets /literature, superscribed with Our Ref.No. and Due Date for the supply of the following items as per the terms & conditions mentioned in Annexure(Form No. AS PER ANNEXURE 1)

क्र.सं. Sl. No.	विनिर्देशों सहित मद का विवरण Description of items with Specifications	इकाई Unit	मात्रा Quantity
1	Manufacture and supply of Titanium Sponge conforming to the quality requirements as per Technical specification attached as Annexure-I, Particle size and quantity as indicated below; 1) CP Grade-I and particle size 2 to 6 mm	MT	25
2	2) CP Grade-I and particle size 7 to 12 mm	MT	25
3	3) CP Grade-I and particle size 13 to 25 mm	MT	100
4	4) CP Grade-II and particle size 13 to 25 mm	MT	50
5	5) CP Grade-III and particle size 13 to 25 mm	MT	50

सुपुर्दगी स्थल

Delivery At VSSC, Trivandrum

प्रेषण की विधि

Mode of Despatch ON SITE

शुल्क छूट

Duty Exemptions

विशेष अनुदेश

Special Instructions NIL

विशेष निबंधन

Specific Terms AS PER ANNEXURE 1

निविदाकारों को अनुदेश

Instructions to Tenderers

SPECIFICATION

Titanium Sponge produced by magnesium reduction and vacuum distillation route shall be meeting the following technical specification.

Chemical composition: - Weight (%)			
Elements	CP Grade-I	CP Grade-II	CP Grade-III
Titanium (Ti)	99.7 Min.	99.6 Min.	99.0 % Min.
Iron (Fe)	0.050 Max.	0.100 Max.	0.300 Max.
Nickel (Ni)	0.010 Max.	0.010 Max.	0.010 Max.
Chromium (Cr)	0.015 Max.	0.015 Max.	0.020 Max.
Magnesium (Mg)	0.040 Max.	0.050 Max.	0.100 Max.
Oxygen (O)	0.050 Max.	0.080 Max.	0.300 Max.
Nitrogen (N)	0.010 Max.	0.010 Max.	0.020 Max.
Hydrogen (H)	0.005 Max.	0.005 Max.	0.005 Max.
Chlorine (Cl)	0.040 Max.	0.050 Max.	0.100 Max.
Carbon (C)	0.015 Max.	0.015 Max.	0.050 Max.
Others each	0.010 Max.	0.010 Max.	0.010 Max.

Hardness (Typical value)	CP Grade-I	CP Grade-II	CP Grade-III
BHN 10/1500/30	110 Max.	150 Max.	200 Max.

Bulk Density (gm/cc)	CP Grade-I	CP Grade-II	CP Grade-III
	1.3 Max.	1.35 Max.	--

Specific conditions:

- Titanium Sponge shall be manufactured either in Russia, Ukraine Kazakhstan, Japan or USA only and entire supply shall be from single source.
- Particle size shall be 2 – 6 mm, 7 – 12 mm and 13 – 25 mm as in tender
- Party shall enclose manufacturer's test certificates along with the offer.
- Lot size of Titanium sponge shall be between 1.5 tonnes to 4.0 tonnes
- If tenderer is not able to meet the exact specification, nearest available specification may be offered and same shall be indicated in offer.
- One button from each lot shall be supplied to verify quality of Titanium sponge at our end.
- Titanium Sponge shall be packed in steel welded drums having gross weight of 250 – 300 kg filled with argon gas and properly sealed.

3. E-Tenders are invited for **Piezoelectric based unsteady pressure sensors** listed below. The Bids are to be prepared and submitted in specified Templates online, by logging into the portal <https://eprocure.isro.gov.in>. Submission of Bids involves two stages to be performed by Vendors - Submission of Bids and Open Authorization. The Bids remain encrypted with the bidders's public key, until the Open Authorization stage. All those Bids where Open Authorization is not given, are automatically disqualified. Such Bids will not be openable and will not be considered for further processing. The Vendors are advised to submit the Bids much before the Closing Time to avoid last minute problems.

E-Procurement No. VSSC/ADMNAUX/2019E1740101 Dt. 29.11.2019 and Print Media Advertisement ref. No. VSSC/P/ADVT/292/2019 Dt. 05.12.2019. E-Tenders are invited for **Piezoelectric based unsteady pressure sensors** through our E-procurement site <https://eprocure.isro.gov.in>. Tender documents can be downloaded **upto 30.12.2019 [16:59 Hrs.]**, **Tender Opening date : 06.01.2020 [10:30 Hrs.]**.

Only online tenders will be accepted. No manual / Postal / e-mail / fax offers will be entertained. No manual tender document will be issued. Parties interested to participate in this e-Tender are required to register themselves as vendors, if not already registered, in our e-procurement portal <https://eprocure.isro.gov.in> by downloading plugins and help demos listed on the home page of the e-procurement link mentioned above to complete the vendor registration process. They can seek help from help desk 080 6780 7786 also as provided in the home page of e-procurement portal in case of any problem for registration and subsequent process. Vendors may please note that without registering in our e-procurement portal, they will not be able to quote for this e-tender.

Important Notice : Tender shall be opened on the first day of the schedule [**ie. 06.01.2020 [10:30 Hrs.]**]. If the tender could not be opened on the first day due to any technical snag, it will be opened on the subsequent day as per the schedule. Bidders who are desirous of attending the tender opening may make arrangements for attending the tender opening at their cost.

4. E-Tenders are invited for **100 L reactor cum vacuum distillation setup with reflux provision** listed below. The Bids are to be prepared and submitted in specified Templates online, by logging into the portal <https://eprocure.isro.gov.in>. Submission of Bids involves two stages to be performed by Vendors - Submission of Bids and Open Authorization. The Bids remain encrypted with the bidders's public key, until the Open Authorization stage. All those Bids where Open Authorization is not given, are automatically disqualified. Such Bids will not be openable and will not be considered for further processing. The Vendors are advised to submit the Bids much before the Closing Time to avoid last minute problems.

E-Procurement No. VSSC/PRSOPURCH/2019E1497502 Dt. 03.12.2019 and Print Media Advertisement ref. No. VSSC/P/ADVT/292/2019 Dt. 05.12.2019. E-Tenders are invited for **100 L reactor cum vacuum distillation setup with reflux provision** through our E-procurement site <https://eprocure.isro.gov.in>. Tender documents can be downloaded **upto 03.01.2020 [11:00 Hrs.], Tender Opening date : 09.01.2020 [14:01 Hrs.].**

Only online tenders will be accepted. No manual / Postal / e-mail / fax offers will be entertained. No manual tender document will be issued. Parties interested to participate in this e-Tender are required to register themselves as vendors, if not already registered, in our e-procurement portal <https://eprocure.isro.gov.in> by downloading plugins and help demos listed on the home page of the e-procurement link mentioned above to complete the vendor registration process. They can seek help from help desk 080 6780 7786 also as provided in the home page of e-procurement portal in case of any problem for registration and subsequent process. Vendors may please note that without registering in our e-procurement portal, they will not be able to quote for this e-tender.

Important Notice : Tender shall be opened on the first day of the schedule [ie. **09.01.2020 [14:01 Hrs.]**]. If the tender could not be opened on the first day due to any technical snag, it will be opened on the subsequent day as per the schedule. Bidders who are desirous of attending the tender opening may make arrangements for attending the tender opening at their cost.

This is a two part tender, Technical & Commercial part (Part I) and Price Part (Part II) shall be submitted separately. The tenderers should not attach any documents containing Price information along with Technical & Commercial Bid (Part I). We do not open PART II (Price Bid), if PART-I (Technical & Commercial offer) does not meet with our technical specification requirements. Cost split up, other price details etc. shall be uploaded as a separate document under COMMERCIAL DOCUMENTS FROM VENDOR tab.

THE TECHNICAL DOCUMENTS NEED TO BE ATTACHED ONLINE AS A SINGLE PDF FILE WITHOUT ANY PRICE INFORMATION, TECHNICAL BID CONTAINING PRICE DETAILS WILL BE TREATED AS REJECTED.

5. E-Tenders are invited for **Electromechanical Compaction system** listed below. The Bids are to be prepared and submitted in specified Templates online, by logging into the portal <https://eprocure.isro.gov.in>. Submission of Bids involves two stages to be performed by Vendors - Submission of Bids and Open Authorization. The Bids remain encrypted with the bidders's public key, until the Open Authorization stage. All those Bids where Open Authorization is not given, are automatically disqualified. Such Bids will not be openable and will not be considered for further processing. The Vendors are advised to submit the Bids much before the Closing Time to avoid last minute problems.

E-Procurement No. VSSC/PRSOPURCH/2019E1767001 Dt. 27.11.2019 and Print Media Advertisement ref. No. VSSC/P/ADVT/292/2019 Dt. 05.12.2019. E-Tenders are invited for **Electromechanical Compaction system** through our E-procurement site <https://eprocure.isro.gov.in>. Tender documents can be downloaded **upto 31.12.2019 [14:00 Hrs.]**, **Tender Opening date : 03.01.2020 [10:01 Hrs.]**.

Only online tenders will be accepted. No manual / Postal / e-mail / fax offers will be entertained. No manual tender document will be issued. Parties interested to participate in this e-Tender are required to register themselves as vendors, if not already registered, in our e-procurement portal <https://eprocure.isro.gov.in> by downloading plugins and help demos listed on the home page of the e-procurement link mentioned above to complete the vendor registration process. They can seek help from help desk 080 6780 7786 also as provided in the home page of e-procurement portal in case of any problem for registration and subsequent process. Vendors may please note that without registering in our e-procurement portal, they will not be able to quote for this e-tender.

Important Notice : Tender shall be opened on the first day of the schedule [**ie. 03.01.2020 [10:01 Hrs.]**]. If the tender could not be opened on the first day due to any technical snag, it will be opened on the subsequent day as per the schedule. Bidders who are desirous of attending the tender opening may make arrangements for attending the tender opening at their cost.

This is a two part tender, Technical & Commercial part (Part I) and Price Part (Part II) shall be submitted separately. The tenderers should not attach any documents containing Price information along with Technical & Commercial Bid (Part I). We do not open PART II (Price Bid), if PART-I (Technical & Commercial offer) does not meet with our technical specification requirements. Cost split up, other price details etc. shall be uploaded as a separate document under COMMERCIAL DOCUMENTS FROM VENDOR tab.

THE TECHNICAL DOCUMENTS NEED TO BE ATTACHED ONLINE AS A SINGLE PDF FILE WITHOUT ANY PRICE INFORMATION, TECHNICAL BID CONTAINING PRICE DETAILS WILL BE TREATED AS REJECTED.

6. E-Tenders are invited for **Design, Supply, Installation, Testing and Commissioning of Fire Protection System on turnkey basis for RPP facilities** listed below. The Bids are to be prepared and submitted in specified Templates online, by logging into the portal <https://eprocure.isro.gov.in>. Submission of Bids involves two stages to be performed by Vendors - Submission of Bids and Open Authorization. The Bids remain encrypted with the bidders's public key, until the Open Authorization stage. All those Bids where Open Authorization is not given, are automatically disqualified. Such Bids will not be openable and will not be considered for further processing. The Vendors are advised to submit the Bids much before the Closing Time to avoid last minute problems.

E-Procurement No. VSSC/PR SOPURCH/2019E1834401 Dt. 25.11.2019 and Print Media Advertisement ref. No. VSSC/P/ADVT/292/2019 Dt. 05.12.2019. E-Tenders are invited for **Design, Supply, Installation, Testing and Commissioning of Fire Protection System** through our E-procurement site <https://eprocure.isro.gov.in>. Tender documents can be downloaded **upto 13.01.2020 [14:00 Hrs.], Tender Opening date : 16.01.2020 [10:01 Hrs.]**.

Only online tenders will be accepted. No manual / Postal / e-mail / fax offers will be entertained. No manual tender document will be issued. Parties interested to participate in this e-Tender are required to register themselves as vendors, if not already registered, in our e-procurement portal <https://eprocure.isro.gov.in> by downloading plugins and help demos listed on the home page of the e-procurement link mentioned above to complete the vendor registration process. They can seek help from help desk 080 6780 7786 also as provided in the home page of e-procurement portal in case of any problem for registration and subsequent process. Vendors may please note that without registering in our e-procurement portal, they will not be able to quote for this e-tender.

Important Notice : Tender shall be opened on the first day of the schedule [ie. **16.01.2020 [10:01 Hrs.]**]. If the tender could not be opened on the first day due to any technical snag, it will be opened on the subsequent day as per the schedule. Bidders who are desirous of attending the tender opening may make arrangements for attending the tender opening at their cost.

This is a two part tender, Technical & Commercial part (Part I) and Price Part (Part II) shall be submitted separately. The tenderers should not attach any documents containing Price information along with Technical & Commercial Bid (Part I). We do not open PART II (Price Bid), if PART-I (Technical & Commercial offer) does not meet with our technical specification requirements. Cost split up, other price details etc. shall be uploaded as a separate document under COMMERCIAL DOCUMENTS FROM VENDOR tab.

THE TECHNICAL DOCUMENTS NEED TO BE ATTACHED ONLINE AS A SINGLE PDF FILE WITHOUT ANY PRICE INFORMATION, TECHNICAL BID CONTAINING PRICE DETAILS WILL BE TREATED AS REJECTED.

7. E-Tenders are invited for **Flexible Intermediate Bulk Container (FIBC) bags** listed below. The Bids are to be prepared and submitted in specified Templates online, by logging into the portal <https://eprocure.isro.gov.in>. Submission of Bids involves two stages to be performed by Vendors - Submission of Bids and Open Authorization. The Bids remain encrypted with the bidders's public key, until the Open Authorization stage. All those Bids where Open Authorization is not given, are automatically disqualified. Such Bids will not be openable and will not be considered for further processing. The Vendors are advised to submit the Bids much before the Closing Time to avoid last minute problems.

E-Procurement No. VSSC/PRSOPURCH/2019E1858701 Dt. 19.11.2019 and Print Media Advertisement ref. No. VSSC/P/ADVT/292/2019 Dt. 05.12.2019. E-Tenders are invited for **Flexible Intermediate Bulk Container (FIBC) bags** through our E-procurement site <https://eprocure.isro.gov.in>. Tender documents can be downloaded **upto 03.01.2020 [14:00 Hrs.]**, **Tender Opening date : 08.01.2020 [10:01 Hrs.]**.

Only online tenders will be accepted. No manual / Postal / e-mail / fax offers will be entertained. No manual tender document will be issued. Parties interested to participate in this e-Tender are required to register themselves as vendors, if not already registered, in our e-procurement portal <https://eprocure.isro.gov.in> by downloading plugins and help demos listed on the home page of the e-procurement link mentioned above to complete the vendor registration process. They can seek help from help desk 080 6780 7786 also as provided in the home page of e-procurement portal in case of any problem for registration and subsequent process. Vendors may please note that without registering in our e-procurement portal, they will not be able to quote for this e-tender.

Important Notice : Tender shall be opened on the first day of the schedule [**ie. 08.01.2020 [10:01 Hrs.]**]. If the tender could not be opened on the first day due to any technical snag, it will be opened on the subsequent day as per the schedule. Bidders who are desirous of attending the tender opening may make arrangements for attending the tender opening at their cost.

8. E-Tenders are invited for **Field Emission Scanning ElectronMicroscope with accessories** listed below. The Bids are to be prepared and submitted in specified Templates online, by logging into the portal <https://eprocure.isro.gov.in>. Submission of Bids involves two stages to be performed by Vendors - Submission of Bids and Open Authorization. The Bids remain encrypted with the bidders's public key, until the Open Authorization stage. All those Bids where Open Authorization is not given, are automatically disqualified. Such Bids will not be openable and will not be considered for further processing. The Vendors are advised to submit the Bids much before the Closing Time to avoid last minute problems.

E-Procurement No. VSSC/MMEPUR/2019E1837901 Dt. 03.12.2019 and Print Media Advertisement ref. No. VSSC/P/ADVT/292/2019 Dt. 05.12.2019. E-Tenders are invited for **Field Emission Scanning ElectronMicroscope with accessories** through our E-procurement site <https://eprocure.isro.gov.in>. Tender documents can be downloaded **upto 14.01.2020 [14:00 Hrs.], Tender Opening date : 16.01.2020 [11:00 Hrs.]**.

Only online tenders will be accepted. No manual / Postal / e-mail / fax offers will be entertained. No manual tender document will be issued. Parties interested to participate in this e-Tender are required to register themselves as vendors, if not already registered, in our e-procurement portal <https://eprocure.isro.gov.in> by downloading plugins and help demos listed on the home page of the e-procurement link mentioned above to complete the vendor registration process. They can seek help from help desk 080 6780 7786 also as provided in the home page of e-procurement portal in case of any problem for registration and subsequent process. Vendors may please note that without registering in our e-procurement portal, they will not be able to quote for this e-tender.

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