



KARNATAKA STATE NATURAL DISASTER MONITORING CENTRE
(A Regd. Society and Autonomous Body, affiliated to Dept. of Revenue,
Govt. of Karnataka)



TENDER DOCUMENT FOR
Supply, installation and maintenance of equipment to strengthen State
Emergency Operations Centre and refurbishment at KSDMA office,
MS Building, Bangalore

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1. Time schedule for bidding

Tender reference No:	KSNDMC/ADM/08/2021
EMD	RS. 1,50,000/-
Last Date for Receiving Queries	20.03.2021 till 5:00 p.m.
Pre-bid meeting & venue	26.03.2021 at 03:00 p.m.
Last Date and Time for submission of Bids	07.04.2021 till 03:00 p.m.
Venue, Date & Time of Opening Of Technical Bids	12.04.2021 at 05:00 p.m.
Venue, Date & Time of Opening Financial Bids	Will be intimated to the Technically qualified bidders
Contact Person, Phone No. and e-mail	R.K. Abhinand, Senior Scientific Asst. Phone: 9964237382, 08067355000 e-mail: IT@KSNDMC.ORG
Address for Communication:	Karnataka State Natural Disaster Monitoring Centre (KSNDMC), Major Sandeep Unnikrishnan road, Near Yelahanka-Attur Layout, Bengaluru-560064

2. Terms and Definition

1. öGoKö shall stand for the Government of Karnataka.
2. öKSNDMCö refers to Karnataka State Natural Disaster Monitoring Centre.
3. öBidderö means any firm offering the supply and or services sought for in the tender document.
4. öSLAö means Service Level Agreement between KSNDMC and Selected bidder.
5. öNOCö means Network operations centre.
6. öPBGö refers to Performance bank guarantee.
7. Unit Price: Unit price is the price for a single component / equipment.
8. Supplier shall mean the successful Bidder with whom KSNDMC signs the agreement for rendering of services for this supply, installation and
9. Project refers to the contract.

3. Introduction

The institutional structure for disaster management in India is in a state of transition after enactment of GOI's Disaster Management (DM) Act 2005 on December 23, 2005. The National Disaster Management Authority (NDMA) has been established at the Government of India level, and the State Disaster Management Authority (SDMA) at State level and District Disaster Management Authority (DDMA) at the District level and are formalized. In pursuant with section 14(1) of DM Act 2005, the State has established Karnataka State Disaster Management Authority (KSDMA). The Hon'ble Chief Minister of Karnataka is the Ex-officio Chairperson of the KSDMA and 8 Cabinet Ministers are members to the Authority. State Executive Committee (SEC) has been constituted under the chairmanship of Chief Secretary as per Section 20 of DM Act 2005. SEC has the responsibility for coordinating and monitoring the implementation of the National Policy, the National Plan and the State Plan as provided under section 22 of the Act. Addl. Chief Secretary/Principal Secretaries/Secretaries of Agriculture, Home, Rural Development and Panchayat Raj and Director General of Fire & Emergency Services (permanent invitee) are members of the SEC. Principal Secretary/Secretary of Revenue Department (DM) is the Member Secretary of SEC As per Section 25 of the DM Act 2005, District Disaster Management Authority (DDMA) has been constituted in all 30 districts of Karnataka with Deputy Commissioners of respective districts being the Chairman of DDMA. State Crisis Management Committee has been constituted under the Chairmanship of Chief Secretary to Government of Karnataka. The Disaster Management is under the Revenue Department and is being headed by the Secretary to Government, Revenue Department (Disaster Management) and is ably assisted by Deputy Secretary, Consultant, Liaison Officer and Under Secretary with supporting staff. KSDMA has formulated Policies, Standard Operating Procedures for 11 key departments, State Disaster Management Plan and Guidelines for Minimum Standard of relief during disaster.

4. Scope of Work

Supply, Installation, commissioning of equipment to establish War room NOC which also involves electrical wiring, networking, civil works and interior designing and comprehensive annual maintenance of video wall, communication equipment, Audio and Video conferencing equipment.

Conference Room:

The conference room shall have the state of art Audio Visual products, Communication equipment and aesthetically designed conference room.

Video wall:

Displays shall be of narrow-bezel design which maximizes visibility even at close distances. The displays should amplify image clarity in any environment and eliminate glare while maintaining content vibrancy and accuracy. The wall should have multi-monitor controllers that can create videowall from multiple content sources like media players, decoders, laptops, DTH etc.

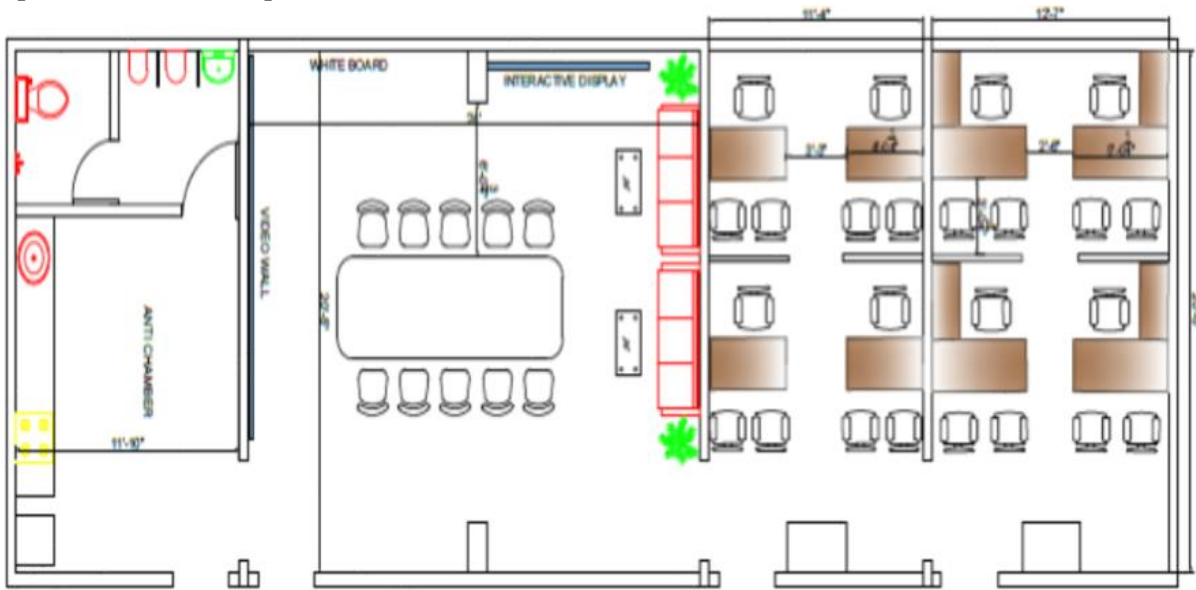
Audio and Video Conferencing equipment:

Conference Room should be equipped with simple to use video and audio equipment. The camera should use innovative facial-tracking algorithms to accurately frame all room participants or focus on the person speaking. Room should have well designed audio system with mics, speakers and amplifiers.

Civil works and Interiors:

The Conference room should be aesthetically designed for, 10 seat conference tables and chairs and 8 working cubicles and air conditioning.

Dismantling of the existing toilet and refurbish the toilet with latest closet, wash basin with granite top, FRP doors and required accessories.



1 Supply:

- 1.1 Supply, installation, commissioning of equipment for establishing a war room Network Operations Centre (NOC) at KSNDMC, Yelahanka as detailed in Annexure -1.
- 1.2 Civil / Interior Works along with electrical and networking have to be made in respect of NOC where supply and installation is involved by the vendor. The number of equipment indicated as in Annexure 7 are indicative or approximate and may vary for which unit rate applicable will be paid.

Interior work is to be carried as specified in this tender document.

2 Time for completion of the project:

The project shall be completed within 60 days from the date of acceptance of the purchase order. Delay in completion of the project in all respects shall attract penalty at 0.5% of the total contract value per day subject to a maximum of 10% of the total contract value.

3 Site for delivery and installation:

The equipment / components are to be installed at KSNDMC, Major Sandeep Unnikrishnan road, Near Yelahanka Attur Layout, Bengaluru-560064.

4 Third Party Software installed in the NOC shall be handed over to the Purchaser and the officers of KSNDMC to be trained on of the software application by the supplier. Detailed project report must be submitted to the Purchaser (KSNDMC).

5 Inspection and testing:

After installation and commissioning, the equipment / components will be tested for their performance. If the results of the tests are not within the margins specified by the OEM or in the codes/manuals of the professional bodies, the tests shall, if required, be repeated and necessary corrective action to be taken by the supplier to ensure that the components /equipment supplied meets the performance specification prescribed. If the performance or workmanship is not found to be not in accordance with the specification in the Tender Document, the Purchaser has the liberty to reject non-performing or defective or all equipment/accessories for reasons to be recorded. The Purchaser shall on giving 30 days notice in writing to the Supplier shall set right defects/problems in the equipment / components supplied or replace the units as the case may be.

Bidder should provide operational and maintenance training of equipment to the KSNDMC officials. During the training period, installation of all application and operating software should be demonstrated. A detailed training plan about the topics to be covered in the training, shall be submitted by the Bidder, sufficiently in advance before commencement of training programme, for KSNDMC's information.

6 The Purchaser shall on giving fifteen days notice in writing to the supplier, who shall set right Defects / problems in the equipment/ components supplied or replace the units as the case may be.

7 Maintenance: The supplier shall provide warranty and onsite comprehensive maintenance for all the equipment /components supplied for five years from the date of acceptance of all items supplied. During the period of warranty and comprehensive annual maintenance contract (CAMC) period the equipments /components supplied shall be maintained on site by the supplier, at no extra cost to the purchaser and ensure that they are kept in full working condition. Service calls by the Purchaser should be resolved by the supplier within 10 working days of the calls or e-mail or through any other communication. Cost of the annual maintenance shall be at least 20% of the cost of supply &

installation of EWS as the case may be.

The above act of backing out would automatically debar the firm from any further dealing with KSNDMC and EMD/performance bank guarantee amount shall be forfeited.

5. Period for completion of project

On receiving the LOI by the successful bidder, time required for completion of supply, installation and commissioning of project has to be submitted.

6. Pre-Qualification Criteria

Bidders who are desirous of bidding for the project shall meet the following Technical criteria to qualify for the technical bid.

SI. No.	Pre-Qualification Criteria	Documents/ proof
1	The OEM/Authorised representative of the OEM/ Bidder should be in business related to Supply of Electronic equipment, software & hardware in India or any other country for at least 3 years as on 31.01.2021	Registration Certificate issued under the Companies Act 1956/2003 of the OEM/ Authorised representative of the OEM/ Bidder (Certificate of Incorporation).
2	The OEM/Authorized representative of the OEM/ Bidder's company's average annual turnover shall be for more than Rs.1,00,00,000 (One Crore Rupees) during the period from 2017-18, 2018-19 & 2019-2020.	Annexure 2: The tenderer shall submit copies of the IT returns for these years. Notwithstanding anything stated above, the Purchaser reserves the right to assess Bidder's capability and capacity to perform the contract, should circumstances warrant such an assessment in the overall interest of the purchaser.
3	The firm/company should produce the self-attested photocopies of documents related to Company PAN Number and GST Number.	Copy of Company PAN Number and GST certificate to be furnished.
4	The Bidder should not have been blacklisted by Government of Karnataka / Central / any other State / UT Government or its agencies for corrupt or	Annexure 3

	fraudulent practices or for indulging in unfair trade practices.	
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Technical Qualification Criteria

SI. No.	Technical Qualification Criteria	Documents/ proof
1	The Bidder should have experience in Development and maintenance of Web based application with any Government Department / Public Sector Undertaking in India.	Submit documentary evidence by way of work orders or experience certificate/s issued by the office/s concerned.
2	Presentation of Concept	Submit Document (Bidder shall submit a documentation about the working principle and design of the SEOC).
3	Compliance statement of technical specifications	Compliance statement with product brochures.

7. General Instructions and Bidding Process

- 1 This invitation for bids is open to all Indian firms who fulfill pre-qualification criteria as specified in this tender document.
- 2 Bidders declared by GoK to be ineligible to participate for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices, shall not be eligible to participate in the tender.
- 3 Firms/Organisations which have breached general or specific instructions for bidding, or general and special conditions of contract with GoK or any of its user organizations during the past 3 years are ineligible to participate in bidding process for this tender.
- 4 Any Company/firm can submit only one bid. Single company if submits more than one bid to this tender shall be disqualified and liable to be black-listed by the Department.

8. Procedure for Submission of Bids

8.1 Tender Processing Fees

Bidder can download the tender document for free of cost from the portal (<http://eproc.karnataka.gov.in>) until the due date and time for bid submission. Any interested bidder

shall pay tender processing fee as specified to the e-Procurement portal. The tender processing fee has to be paid through any of the four e-payment options in the portal:

- Credit Card
- Direct Debit
- National Electronic Funds Transfer (NEFT)
- Over the Counter (OTC) ó designated ICICI bank branches located across the country

Please note that payments submitted through cheque or demand draft towards tender processing fee shall not be accepted. Further details regarding e-Payment of tender processing fee, please refer to e-Procurement portal at the above mentioned website or call e-procurement helpline.

8.2 Modes of Submission

All interested bidders shall pay EMD and Tender Processing fee and submit their Technical and Commercial bids electronically using the unified e-Procurement platform. The e-Procurement portal is available at: <http://eproc.karnataka.gov.in>

Intending tenderers can submit the tenders only through the unified e-Procurement system It will be in the interest of the bidders to familiarize themselves with the e-Procurement system to ensure smooth preparation and submission of the tender documents on or before the scheduled date and time prescribed for bid submission to avoid problems / glitches that may arise on the last day of submission of the bid. KSNDMC will not be responsible for any delays due to unavailability of the portal or internet link.

8.3 Authentication of Bid

The response bid shall be signed by the Bidder or a person or person who has been authorized by their company or firm. A letter of authorization/ power-of-attorney issued by the competent authority of the company / firm to the person signing the tender document should accompany the bid. All pages of the bid, except for printed literature, shall be initialed and stamped by the person or persons signing the bid document.

8.4 Validation of interlineations in Bid

The bid documents uploaded to the e- procurement portal should be legible and shall not contain interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

9. Clarification on Tender Document

A prospective Bidder requiring any clarification on the tender document may submit his queries, in writing, to the mailing address on or before the time and date indicated in Invitation for Bids / Key events and dates. Queries must be submitted in the following format only to be considered for clarification:

Sl. No	Section No./ Clause No./General queries.	Page No.	Reference/ Subject	Clarification required on

Queries received after the last date and time prescribed in Invitation for Bids / Key events and dates shall not be entertained. Queries received and Clarifications thereon will be uploaded on the portal (<http://eproc.karnataka.gov.in>)

10. Language of Bids

The Bids prepared and submitted by the Bidder and all correspondence and documents exchanged relating to the bids, shall be in English language.

11. Bid Prices

The Bidder shall prepare the bid based on details provided in the tender documents. It must be clearly understood that the scope of work indicated in the tender is intended to give the bidder an idea about the nature of the work involved and may not be exhaustive. The Bidder shall carry out due diligence.

The tenderer shall quote prices item wise prices for all items in Annexure-5-Commercial bid.

Tender will be rejected in the event of failure of the tenderer to quote for all items in the Annexure-5.

Prices quoted in the Commercial bid for each item, shall be all inclusive price including basic cost, duties, all taxes, transportation charges, insurance, handling and all other charges if any, until the items are delivered and installed at the Purchaser's site. Price quoted shall also include, cost of electrical cords, adaptors, all required accessories etc. and complete installation, testing, commissioning and training for KSNDMC staff.

The tender shall indicate the percentage of taxes, statutory duties, levy, included in the quoted price and other charges such as transport, insurance, handling etc.

Variation of taxes, duties and levy: Rate quoted by the tenderers shall be firm during the tenure of the contract, except for variation in the rate of duty or taxes levied by the Union or State or Local

Government. Any variation in taxes, duties and levy shall be to the account of the Purchaser.

Variation in Quantity: Quantities indicated in Annexure 5 are approximate. Final quantities may vary plus or minus fifteen percent of the estimates. Intending tenderers should note the probable variation indicated as above and it shall be binding on the successful tenderer to adhere to the increase or decrease in the quantities as mentioned above under the same terms and conditions and price.

12. Bid Currencies

Prices shall be quoted in Indian Rupees (INR).

13. Bidder Qualification

The "Bidder" (add in the definitions) as used in the tender documents shall mean the one who has signed the Tender Form. The Bidder may be either the Principal Officer or his duly Authorized Representative, in either case he/ she shall submit a certificate of authority for signing the tender document and to correspond with KSNDMC. All certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall, as far as possible, be furnished and signed by the authorized representative and or the principal.

It is further clarified that the individual signing the tender or other documents in connection with the tender must certify whether he/she constitutes and act as attorney of the firm or the company on whose behalf he/she is signing.

14. Bid Security (Earnest Money Deposit)

The Bid shall contain EMD amount of Rs.1,50,000/- (Rupees One lakh fifty thousand) and shall be paid through any of the four e-payment options in the portal (<https://eproc.karnataka.gov.in/>)

- Credit Card
- Direct Debit
- National Electronic Funds Transfer (NEFT)
- Over the Counter (OTC) ó designated ICICI bank branches located across the country

Note: e-Procurement portal will deny submission of the bid without submitting the EMD Deposit and it will take min 2-3 days for confirmation from the bank regarding the EMD realization.

Please note that payments submitted through cheque or demand draft shall not be accepted. For further details regarding e-Payment, please refer to e-Procurement portal at the above-mentioned website.

The bidder shall be disqualified in the Technical Evaluation process if the prescribed EMD is not submitted along with the bid. The EMD (bid security) of the unsuccessful Bidder/s will be discharged / returned as early as possible.

No interest will be payable by KSNDMC on the amount of the Bid Security. The bid security may be forfeited:

- 1) If a Bidder withdraws his/her bid or increases the quoted prices during the period of bid validity, or its extended period, without the explicit consent of the department, if any; or
- 2) In the case the successful Bidder, after issuing Purchase/Work order if she / he fails within the to sign the Agreement with in the time specified or furnish the required Performance Bank Guarantee.

17. Bid Validity Period

17.1 Period of Validity of Bids

Bids shall remain valid for 60 days from the date of opening of Technical Bids. A bid valid for a shorter period may be rejected as non-responsive.

17.2 Extension of Period of Validity

In exceptional circumstances, KSNDMC may request the Bidder(s) for an extension of the period of validity. The request and the responses thereto shall be made in writing (or by fax or by mail). In such case, the validity of EMD shall also be suitably extended.

18. Contacting KSNDMC

18.1 Contact by Writing

No bidder shall contact KSNDMC on any matter relating to its bid, from the time of bid opening till the time the Contract is awarded. If the Bidder wishes to provide any additional information to KSNDMC, it should be done through writing a letter or through an email.

18.2 Rejection of Bid

Any effort by a Bidder to influence the KSNDMC in its decisions with respect to the tender entails rejection of the bid submitted by the tenderer.

18.3 Purchaser's Right to Vary Scope of Contract at the time of Award

Purchaser may at any time, by a written order given to the Bidder, make changes to the scope of the Contract as specified. If any such change causes an increase or decrease in the cost of Contract, whether changed or not changed by the order, an equitable adjustment shall be made in the Contract Value or time schedule, or both, and the Contract shall accordingly be amended. Any claims by the Bidder for adjustment under this Clause must be asserted within thirty (30) days from the date of the Bidder's receipt of KSNDMC's changed order.

18.4 Purchaser's Right to Accept Any Bid and to reject any or All Bids

The Purchaser reserves the right to accept or reject any bid or all bids and to annul the Tender process without assigning any reasons therefor and without any liability.

Purchaser, also reserves the right in the interest of the work, to allocate the order to one or more tenderers at the prices and terms and conditions of the lowest tenderer.

19. Assignment / Sub-contracts

On award of the Supply/Work order, the Contractor shall not assign the performance of contractual obligations, in whole or in part to any third party, except with the Purchaser's prior written consent.

However, consortium with another firms/companies is permitted. Format of consortium agreement to be submitted is as per Annexure A.

20. Notification of Award

20.1 Signing of Contract

On issue of Letter of Intent (LOI), the successful bidder, shall acknowledge the receipt in writing and shall send acceptance to LOI and shall enter into agreement within seven (10) days from the date of receipt of LOI.

20.2 Failure to abide by the Agreement

The conditions stipulated in the agreement shall be strictly adhered to and violation of any of the conditions will entail termination of the contract without prejudice to the rights of the Purchaser with such penalties as specified in the tender document and the Agreement.

21. Performance Bank Guarantee

- The successful bidder, Signing of Contract
- The successful tenderer, within 7 days of the Signing of Contract, shall furnish an unconditional and irrevocable Bank Guarantee from a Scheduled commercial bank of Reserve Bank of India, in the format acceptable to the Purchaser, for an amount equivalent to 10% of the total value of the Purchase order. The bank Guarantee shall be kept valid for a period of sixty-three Months from the date of Bank guarantee issue date. Failure of the successful Bidder to comply with the requirement shall constitute sufficient grounds for the annulment of the award of the order and forfeiture of the EMD.
- Rejection Criteria
Besides other terms and conditions of the tender document, bids may be rejected under following circumstances:

22. Technical Rejection Criteria

- Failure to conform to the technical criteria prescribed.
- Bids submitted without or with improper EMD.
- Bids which do not conform to required validity of the bid as prescribed in the tender.
- If the information provided by the Bidder is found to be incorrect / misleading at any stage / time During the Tendering Process.
- Any effort on the part of a Bidder to influence the bid evaluation, bid comparison or contract Award decisions.
- Bids without signature of person(s) duly authorized on required pages of the bid.
- Bids without power of authorization and any other document consisting of adequate proof of the Ability of the signatory to bind the Bidder.
- Technical Bid containing commercial details.
- Revelation of Prices in any form or by any reason before opening the Commercial Bid.
- Failure to furnish all information required by the tender Document or submission of a bid not Substantially responsive to the Tender document in every respect.
- Failure to furnish proofs for information provided.
- Bidders not quoting for the complete scope of work as indicated in the tender document, Addendum (if any) and any subsequent information given to the Bidder.
- Bidders not complying with the Technical and General Terms and conditions as stated in the Tender document.

- Any false declaration by the bidder during the bidding process, following action may be taken:
 - Liable for Legal Action
 - Forfeiture of entire PBG/EMD.
 - Forfeiture of any Released payments
 - Blacklisting of the Vendor

23. Commercial Rejection Criteria

- Incomplete Price Bid
- Price Bids that do not conform to the Tender's price bid format
- Total price quoted by the Bidder does not include all statutory taxes and levies applicable.

24. Liability clause

Neither party shall be liable to the other for any special, indirect, incidental, consequential (including loss of profit or revenue), exemplary or punitive damages whether in contract, tort or other theories of law, even if such party has been advised of the possibility of such damages.

The total cumulative liability of either party arising from or relating to this Agreement shall not exceed the contract value provided, however, that this limitation shall not apply to any liability for damages arising from (a) willful misconduct or (b) indemnification against third party claims for infringement

25. Liquidated Damages

Subject to clause for Force Majeure, if the vendor fails to complete the assignment in compliance to the time schedule prescribed in the Purchase/ Work order or the extended date or if the vendor repudiates the Contract before completion of the Work, the Purchaser at its discretion may without prejudice to any other right or remedy available, forfeit the entire performance bank guarantee submitted by the vendor apart from blacklisting of the selected vendor for further participation in any of the tenders of the KSNDMC.

Any such recovery or liquidated damages shall not in any way relieve the vendor from any of its obligations to complete the Works or from any other obligations and liabilities under the Contract.

26. Termination of Contract

Any violations / non-compliance of any of the conditions will entail termination of the contract without prejudice to the rights of the Purchaser with such penalties as specified in the contract. Upon such termination, the Purchaser will have the right to forfeit the entire performance bank guarantee submitted by the vendor, apart from blacklisting of the Supplier for further participation in any of the

tenders of Purchaser.

Where a change of management of the Supplier has occurred whereby the Supplier's company has merged, amalgamated or been taken over, due to which the majority shareholding of the Supplier has been transferred to another entity, and in case requirements for the Supplier set out in the tender document are not complied with, the purchaser can by a 15 (Fifteen) days written notice, terminate the contract and such notice shall become effective at the end of the notice period.

27. Force Majeure

- a. In the event if the Force Majeure conditions substantially, prevents, hinders or delays the Supplier's performance for project's implementation or the operation of Project's critical business functions for a period in excess of 3 days, the Purchaser may upon request by the Supplier, declare at its discretion, certain specified period as Force Majeure. However, when the situation arising out of force Majeure comes to an end in the assessment of the Purchaser, the Supplier shall resume normal activities under this agreement immediately thereafter. If the Purchaser considers it necessary, may grant an extension of time to the Supplier for resuming normal activities under this agreement. If the Supplier does not resume normal activities immediately or within the extended period, if any, granted, the purchaser will have the option to invoke the Performance Guarantee, levy liquidated damages, obtain substitute performance from an alternate vendor at the cost of Supplier and/or terminate the Agreement.

Notwithstanding the terms of this Article, the failure in complying to the terms and conditions of the agreement on the part of the Supplier in implementing any disaster contingency plan, insurance coverage and back-up and other data safeguards in accordance with the terms of the Agreement against natural disaster, fire, sabotage or other similar occurrence shall not be an event of Force Majeure.

28. Resolution of disputes

Resolution of disputes

Any dispute arising out of or in connection with this Agreement or the tender document shall in the first instance be dealt with in accordance with the escalation procedure set forth herein.

Scope of Dispute Resolution

Except where otherwise provided in the agreement, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or

thing whatsoever in any way arising out of or relating to the agreement, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the services and deliverables or the execution or failure to execute the same whether arising during the progress of the Project (define) or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:

If any dispute arises between the purchaser and the Supplier in connection with, or arising out of, the agreement or tender conditions or execution of the Supply/work, whether before or after the repudiation or other termination of the agreement, including any disagreement by either party with any action, inaction, opinion, instruction, determination, certificate or valuation, the matter in dispute shall, in the first place, be referred to the Director, KSNDMC. Either party may refer a dispute to the Director or Principal Secretary, KSNDMC, who shall give a decision in writing within 30 days of reference of dispute. Either party may refer a written decision of Director, KSNDMC or Principal Secretary, Dept. of Revenue (DM), GoK for arbitration.

- a) In case either of the party is not satisfied with the decision of the Director, KSNDMC or Principal Secretary, Dept. of Revenue (DM), GoK, they can institute arbitration proceedings as per Indian Arbitration and reconciliation Act, 1996, after a 30-day notice period.
- b) Any dispute or difference or claim arising out of, or in connection with, or relating to the Agreement or breach, termination or invalidity thereof, shall be referred to and settled under the Arbitration Center, Karnataka (domestic and international) rules 2012, by one or more Arbitrators appointed in accordance with its rules.
- c) Arbitration proceedings shall be held in Bangalore and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.
- d) Any litigation in courts shall be in Bengaluru Jurisdiction only.

29. Interpretation of Clauses

In case of any ambiguity in the interpretation of any clauses in the bid document, Director, KSNDMC interpretation of the clauses shall be final and binding on all parties.

30. Third Party Claims

The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in reference to this Supply/work order in India.

31. Performance Related SLAs

32.1 SLAs during Warranty period

The Supplies and Support and Maintenance services shall be provided on all working days. The Supplier shall repair/replace/maintain the equipment in good working conditions. If there is a delay in providing maintenance services during the Agreement period, the Supplier is liable to be penalized.

1. SLA for Repair/Maintenance/ Replacement:

Sl. No.	Item	Penalty
1	Delay in completion of project.	A penalty of 1% from the total contract value per week of delay or part thereof subject to a maximum of 10% of the total contract value.

32. Submission of Proposals

The Technical and Financial bids duly signed digitally shall be uploaded by the intended tenderer electronically to e-Procurement platform-www.eproc.karnataka.gov.in.

33. Evaluation Process

The bids are evaluated in 2 phase process as below:

- First Phase - Evaluated based on Technical Qualification Criteria
- Second Phase - Evaluated based on Commercial aspects

34. Technical Evaluation Conformance

The Bidders shall be evaluated based on the technical criteria. Bidders failing to meet the Technical criteria shall not be considered for opening their Commercial Bid.

- a. Purchaser reserves the right to seek clarifications and additional documentary evidence from the bidders to ascertain any other information required but not available in the tender document.
- b. Decision of the Purchaser in the evaluation of the Technical bids shall be final.

35. Commercial Bid Evaluation

The commercial quotes submitted by technically qualified bidders will be opened in e-Procurement Portal. The total value of all items put together would be the basis for evaluating the lowest tender.

36. Payment terms

The payment will be made on completion of work in phased manner and on submission of bank guarantee as the case may be and certification by the competent authority.

Phase 1: Civil works and interior work including electrical and networking: 25% of the total project cost.

Phase 2: Supply of furniture: 15% of the total project cost.

Phase 3: Supply and satisfactory installation of equipment (Audio, Video conference, air conditioners and Video-wall display) - 35% of the total project cost.

Phase 4: Other works as per the Scope of work defined in this tender document and as per the purchaser ó 25%

TDS and any other applicable taxes as per prevailing rates, will be deducted before making the payment.

ANNEXURE 1: UNDERTAKING

To,

Karnataka State Natural Disaster Monitoring Centre (KSNDMC)

Government of Karnataka

Major Sandeep Unnikrishnan road, near Yelahanka-Attur Layout,

Bangalore-560064

Sir,

We M/s í í í í í í . (Name of the bidder) here in after Called òthe Supplierö do hereby affirm and Undertake to abide by all the terms, conditions and specifications given in the bidding document No.

Datedí í í .. While performing the contractual obligations relating to supply, installation, commissioning and maintenance of equipment to establish State Emergency Operations Centre along with civil works and interior designing. We also adhere to guarantee clause as specified in terms and conditions of the contract.

Yours faithfully,

Signature of the bidder and with office seal

Place:

Date

Annexure 2: Turnover

Financial year	Total Turnover of the Company (in INR)
2017-18	
2018-19	
2019-20	

Authorised signatory Name

Signature

Seal

Annexure 3: Declaration on Non black-Listment

DD/MM/YYYY

To

KSNDMC

Dear Sir,

Sub.: Declaration on non black-Listment

We _____ hereby confirm that our firm/organization/company has neither been blacklisted by the Government of Karnataka or any of its agencies for any reasons whatsoever, nor has our firm/organization/company been blacklisted by Central / any other State/UT Government or its agencies for indulging in corrupt or fraudulent practices or for indulging in unfair trade practices.

Sincerely yours

Authorized Signatory

Name and Designation

<< Bidder Name>>

Annexure 4: Presentation of Concept

Document Presentation

Bidder shall submit a documentation about the working principle of the Network Operations Centre.

ANNEXURE 6 5: COMMERCIAL BID

Supply, Installation, Commissioning of equipment and refurbishment of office at Multi Storeyed building installed at Bangalore in Karnataka.

Intending Bidders shall quote prices for all items listed hereunder failing which the bid shall be treated as invalid.

Sl. No.	Description of Goods	Quantity	Price per Unit in Rs.
	Video Wall & Controller		
1	Video wall: Each display unit of 55 inch or better with bezel width of 0.9mm (0.8mm Bezel to bezel) with push / pull wall brackets with micro adjustment.	4	
	PCI express card with 4HDMI sources, 4 DVI and 1 Rj45 ethernet port	1	
	Multi monitor controller appliance.	1	
	Video-wall Management software	1	
1	P3 Magnetic white writing board	1	
	Video conference equipment.	1 No.	
1	Audio system with wall mount or ceiling speakers	2 No.	
	Gooseneck MIC	8 Nos.	
	Lapel MIC	1 Nos.	
	Rack mountable power amplifier	1 Nos.	
1	Fire Alarm System with Extinguisher (One LCD Display Panel, Three Analogue Multi Sensor, One Addressable manual call point, one Ceiling mounted addressable sounder, two Fault or Loop isolator module, 30 meters of FRLS armored Copper Cable and 30mtrs of PVC conduits)	1	
	CCTV		
	4 Channel NVR with with 500GB HDD	1	
	FULL High Definition 5 megapixel Surveillance camera	2	
1	ELECTRICAL & NETWORKING		
1	Supplying open Conduit pipe conforming to IS 2509.	250 Mtrs.	
2	Concealed Conduit pipe conforming to IS 2509.	180 Mtrs.	
3	Medium point above 3Mtr upto 6Mtr from tapping point to out let via switch box.	14 point	
4	Long point above 6Mtr upto 10Mtr from tapping point to out let via switch box.	12 point	
	2 way Flush mounting powder coated metal box for mounting modular switch.	15Nos.	

Sl. No.	Description of Goods	Quantity	Price per Unit in Rs.
	6way Flush mounting powder coated metal box for mounting modular switch.	15 Nos.	
	8 way Flush mounting powder coated metal box for mounting modular switch.	18 Nos.	
	12way Flush mounting powder coated metal box for mounting modular switch.	4 Nos.	
	2 Module superior quality wood colour switch mounting polycarbonate plate	15 Nos.	
	6 Module superior quality wood colour switch mounting polycarbonate plate	15 Nos.	
	8 Module superior quality wood colour switch mounting polycarbonate plate	18 Nos.	
	12 Module superior quality wood colour switch mounting polycarbonate plate	4 Nos.	
	5 Amps 1 -way modular switch	30 Nos.	
	6 Amps 3 way socket	80 Nos.	
	32Amps DP switch	10 Nos.	
	6/16 Amps universal socket	10 Nos.	
	Dummy Switch	20 Nos.	
	TPN, 12way MCCB distribution Panel which conform to IS 8828 with four MCCB/MCBs as outgoings which confirms to IS8828	1Nos.	
	Supplying and fixing miniature circuit breakers with 5 to 32 amps D.P. MCB	5 Nos.	
	Supplying and fixing miniature circuit breakers with 40 to 63 amps D.P. MCB	2 Nos.	
	Supplying and fixing miniature circuit breakers with 63 Amps MCB TPN	1 Nos.	
	Multi strand Copper with low conductor resistance single core wire of 1 Sq.mm.	1600 Mtrs.	
	Multi strand Copper with low conductor resistance single	1600	

Sl. No.	Description of Goods	Quantity	Price per Unit in Rs.
	core wire of 1.5 Sq.mm.	Mtrs.	
	Multi strand Copper with low conductor resistance single core wire of 2.5 Sq.mm.	1800 Mtrs.	
	Multi strand Copper with low conductor resistance single core wire of 4 Sq.mm.	400 Mtrs.	
	Multi strand Copper with low conductor resistance single core wire of 6 Sq.mm.	100 Mtrs.	
	Supply of recess mounted rolling type square LED Down light 12 watts with 4/6W GU 10 LED Lamp Rib Fabricated from Die cast aluminum with white powder coated prewired to mains connector with suitable driver & having swiveling unit of aluminum die cast eye ball & LED Lamp position retained by circular wire spring. With 5 years Warranty against any manufacturing defect working under standard electrical condition.	20 Nos.	
	Supplying and Fixing of 2 ton inverter air conditioners with five star rating.	4 Nos.	
	Supplying and Fixing of 6U RACK or bigger with power manager & Cable manager.	1 No.	
	Supplying and Drawing UTP CAT 6 E LAN cable	500 Mtrs.	
	Supplying and Fixing of I/O Socket with back box	16 Nos.	
	Supplying and Fixing of 2 Mtrs Patch cable CAT 6	20 Mtrs.	
	Supplying and fixing of network switch mounting rack with Specification of 6U rack or bigger with 450mm depth	1 Nos.	
	Supplying and fixing of L3 24 Port Networking switch.	1Nos.	
	Supplying and Fixing 24 Port Patch panel.	1 Nos.	
	Wooden wall paneling & natural veneer pasted above	1500 Sq. Ft.	
	Wooden frame with section 2öx 2ö cross section fixed to wall for paneling partition.	1500 Sq. Ft.	

Sl. No.	Description of Goods	Quantity	Price per Unit in Rs.
	Laying of wooden flooring for conference room	1250 Sq. Ft.	
	Replacement of doors with the matching veneer.	2 Nos.	
	Artistic Gypsum board for false ceiling.	1250 Sq. Ft.	
	Wall hanging wooden cabinet below TV with laminate finish Size.	1 Nos.	
	Staff table with pedestal	12 Nos	
	Push back Push back chairs with full mechanism finish	12 Nos.	
	Conference table with veneer on top & melamine finish	1 Nos.	
	Providing of doors with frame for the Control room.	2 Nos.	
	Supply of conference chairs	20 Nos.	
	Supply of single seater full upholstered sofa chair Using art leather.	8 Nos.	
	Designing & supervision Charges	Lumpsum	
	Dual Port Facia Panel for RJ45 and RJ 11 Connectors	12 Nos.	
	Wifi access points	2 Nos.	
4	Laying of vitrified tiles for staff chambers (Kajaria, RAK, Somany, Nitco, Simpola)	700 Sq. Ft.	
10	Guest chairs with cushion and legs	16 Nos.	
10	Full length conference table with veneer on top & melamine finish	1 Nos.	
14	Half height partition with frame work	54 Sq. Ft	
15	Providing pantry counter with granite top, wall tiling With sink, taps etc.,	Total Pkg.	
16	Toilet renovation	Lumpsum	

Note: Successful bidder has to submit the breakup price of each line item as mentioned in the commercial bid format. Bidder quoting the lowest price for all the items will be considered for awarding the tender

ANNEXURE – 6

PERFORMANCE SECURITY BANK GUARANTEE FORM

To
The Director,
Karnataka State Natural Disaster Monitoring Centre
Yelahanka,
Bangalore-560064

WHEREAS (Name of contractor) hereinafter called "the Supplier" has undertaken, in pursuance of Agreement No..... dated..... 2020 for Supply, Installation and maintenance of Network Operations Centre.

AND WHEREAS it has been stipulated in the Agreement that the Supplier shall furnish a Bank Guarantee issued by a Scheduled Commercial bank for a sum equivalent to 5% of the total contract value specified therein as performance security for complying with the contractual obligations.

AND WHEREAS we having agreed to give the Supplier a Guarantee: THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the contractor, up to a total of..... (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the contractor to be in default under the Contract and without cavil or argument, any sum or sums within the limit of (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein. This guarantee is valid until the three months of the date of expiry.

Signature and Seal of Guarantors

.....
.....
.....

Date.....2021

Address:

Annexure 7

Technical Specifications

Specification for the Supply and Installation of Equipment to establish State Emergency Operations Centre at KSNDMC at Karnataka State Natural Disaster Monitoring Centre in Karnataka.

Video wall (8 feet width * 4.5 feet height or bigger)

Description	Specifications
Display Screen size	55 inches or higher
Bezel width	Ö0.9mm (i.e. Ö1.8 mm bezel to bezel)
Panel technology	IPS or VA technology
Resolution	1920 * 1080 or better
Brightness	500 nits or better
Static contrast ratio	1400:1 or better
Dynamic contrast ratio	500,000:1 or better
Response time	Ö8ms
Processor	Quad core or better with embedded Content Management Software
lifetime	60000 hours
Input	2 HDMI, 1 Display port, 1 DVI and 1 USB ports
External control	RS232C, RJ 45 and USB 2.0 or better
Wall brackets	Push/Pull Wall brackets with micro adjustment
Operating system	Windows or WEBOS or TIZEN
Safety	CB/NRTL
Certification	FCC class öAö/CE/KC/ ISO
Energy star	8.0 or better
Warranty and maintenance	5 years

Video wall controller with software

Description	Specifications
Controller	Multi monitor controller appliance with input card for 4 HDMI input and 8 HDMI outputs, 4DVI input and 8 OUT, 4 RJ 45 input.
Graphics card	PCI Quad HDMI Graphics card with 4 native HDMI connectors.
Software	Suitable Software
Warranty and maintenance	5 years

Work station Computer

Description	Specifications
Processor	Intel Xeon W-1290P or AMD Ryzen 9 3900X
Memory (RAM)	128GB (4x32GB) ECC DDR4 -2933 Mhz. memory.
Internal Disk Drives	1 x 1000 GB 7200, SAS Hard drives and 1*256GB SSD.
Chipset	Intel W480.
Graphic Card	Nvidia Quadro RTX 5000 or AMD Radeon pro 5500M
RAID	RAID 0,1,5.
External Ports	10/100/1000 auto-sensing Ethernet ports, atleast 3Nos. USB 3.0; 1 ó Microphone, HDMI/Display Port/ mDP.
Power Supply	Energy rating > =85%
Keyboard and Mouse	USB Keyboard & USB Mouse
Monitor	27 inches LED IPS with resolution of 1920*1200 pixels or higher with Suitable cable
Operating System	Windows 10 Professional.
Other accessories	Standard accessories like cables, Software etc. Should be supplied
Warranty	5 Years onsite comprehensive warranty
Product Details	The Detailed Technical specifications of the Model with images should be available to public on OEM's official website for verification. Part Numbers with make and Model of all items of the BOM of the offered Model for cross verification, and to mention in Purchase Order
Regulatory Compliance	RoHS, WEEE.

Wifi Access point (2 Nos.)

Description	Specifications
Access Point type	Dual-band, controller-based 802.11a/g/n/ac
Integrated antenna	Flexible radio (either 2.4 GHz or 5 GHz) 2.4 GHz, gain 4 dBi, internal antenna, omnidirectional in azimuth 5 GHz, gain 6 dBi, internal directional antenna, elevation plane beamwidth 90° Dedicated 5-GHz radio 5 GHz, gain 5 dBi, internal antenna, omnidirectional in azimuth

Interfaces	2802I/E 2x 100/1000BASE-T autosensing (RJ-45) Management console port (RJ-45) USB 2.0 (enabled via future software)
Warranty and comprehensive maintenance	5 years
Standards	IEEE 802.11a/b/g, 802.11n, 802.11h, 802.11d, IEEE 802.11ac, 802.11i, Wi-Fi Protected Access 3 (WPA3), WPA2, WPA, 802.1X, EAP-Transport Layer Security (TLS)

Video Conference:

Description	Specifications
Camera	PTZ HD 1080P60, 1 / 2.7inch CMOS sensor, 2 Mega pixel, USB, RS232 1 INPUT and 1 OUTPUT
Media Player	Intel/ AMD/ Celron processor with at least 8GB RAM, 256 SSD drive, three ports of USB 2.0, one port of HDMI
Warranty and comprehensive maintenance	5 years

Gooseneck Mics

Description	Specifications
Type	Desktop base with at least 9 inch cable with adjustable holder and transformerless output.
Pickup pattern	Cardioid / Super cardioid / Omni directional
Frequency response	50Hz to 17 kHz
Certification	CE / ISO.
Warranty and comprehensive maintenance	5 years

Wall mount or ceiling speakers

Description	Specifications
Output	× 50watts
Frequency response (-3db)	75 ó 17 KHz
Frequency response (-10db)	65 ó 20 KHz

Overload Protection	Resistor ó Network power reduction with automatic reset
Transducer nominal impedance	8 ohms
Sensitivity	× 85db
Certification	CE / ISO.
Warranty and comprehensive maintenance	5 years

Amplifier

Description	Specifications
RMS Power	4 * 150 watts
Signal / Noise	× 100 db
Gain (Low Z mode)	32 db
Gain (70V mode)	35 db
Gain (100V mode)	38 db
Frequency response	4-8 ohms, 20 Hz to 20Khz
Protection	DC Short circuit, overheating, Over load and signal limiting
Input Impedance	20 ká balanced
Audio input channels	4 balanced
Audio output	4
Integrated digital signal processor (DSP) with A/D and D/A converters	24 bit / 48kHz
Audio latency of DSP	Ö 1ms
Cooling system	Microprocessor based cooling system with variable speed fans.
Protections	High temperature, output short, extra high frequency, excessively low or high AC line voltage.
Certification	CE / ISO.
Warranty and comprehensive maintenance	5 years

Electrical & Networking

Description	Specifications
Open Conduit pipe	Supplying open Conduit pipe 25mm diameter to 2mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug in case of RCC ceiling and RCC wall or rawl plug in case of brick wall and cement plastering the

	damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.
Concealed Conduit pipe	Supplying of Concealed Conduit system PVC conduit pipe of 25mm diameter and 2mm thickness which conforms to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall stone structure or rawl plugs in case of brick walls and cement plastering damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.
Copper wiring	Point wiring using Copper wire without switch. Supplying and wiring adopting loop system in existing PVC Conduit / casing capping using 1100V grade, COPPER conductor flexible multi strand FRLS PVC insulated, 2X1.5Sq.mm Cable conforming to the GTP without switch, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block complete for each outlet. <ul style="list-style-type: none"> • Medium point of 3Mtr. upto 6Mtr. length from tapping point to outlet via switch box. • Long point of 6Mtr. upto 10Mtr. length from tapping point to outlet via switch box.
Mounting modular metal box	Suppling and flush mounting powder coted metal box suitable for mounting modular switch plates. The box should be firmly flush mounted after due groove cutting in brick wall. a) 2 way, b) 6way, c) 8 way, d) 12way
Wooden colour switch mounting plate	Supplying and fixing superior quality wood switch mounting polycarbonate plate with necessary supporting back plate with required nos. of machine screws, bolts nuts etc., complete on the existing metal/wood box. a) 2 Module, b) 6 Module, c) 8 Module and d) 12 Module
Wiring for lighting	Wiring for lighting / power circuit using one of FRLS PVC insulated 1100V grade, multi strand Copper with low conductor resistance single core wire in open or concealed system of wiring with Specified IS 694-:1990. - 1 sq.mm. , 1.5 Sq.mm., 2.5 Sq.mm., 4 Sq.mm. and 6 Sq.mm.
Modular switches	Supplying and fixing of modular switch/ Socket/stepped electronic fan regulator/ dimmer/telephone socket etc. on existing modular switch plate. a)5 Amps 1 -way switch, b) 6Amps 3 way socket, c) 32Amps DP switch, d) 6/16 Amps universal socket and e) Dummy Switch
MCCB distribution panel	Supplying and fixing regular MCCB distribution Panel confirm to IS 8828, on wall / wood board / flush mounting using required clamps, bolts, nuts etc., with provision for fixing of suitable type capacity MCCB's as an incomer for 3 phase Double door with necessary bus bar completely wired to use on 440Volts 3phase 4 wire powder coated painting etc., complete with a provision for fixing of single/three phase suitable capacity MCCB/MCB's as outgoing confirming to IS8828. a)TPN,12way
Circuit breakers	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve , indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required. a) 5 to 32 amps D.P.MCB,

	b) 40 to 63 amps D.P. MCB, and 63 Amps MCB TPN
LED Lights	Supply of recess mounted rolling type LED square or round Down light 12 watts with 4/6W GU 10 LED Lamp Rib Fabricated from Die cast aluminum with white powder coated prewired to mains connector with suitable driver & having swiveling unit of aluminum die cast eye ball & LED Lamp position retained by circular wire spring. 5 years Warranty against any manufacturing defect working under standard electrical condition.
Network Points	40 RJ45 Network points.

Interior and Furniture

False ceiling	Artistic Gypsum board false ceiling. Providing 10mm thick plaster of paris / anhydrous Gypsum board for ceiling flat surface upto a height of 11feet above floor level over GI Channel patty, L-angle 25mm / 6mm with 10mm gap in between and reinforced with screws bolt including cost of materials, labour, curing complete as per specification.
Wooden cabinet	Wall hanging wooden cabinet below TV with laminate finish, Size- 12feet x 20 feet
Table with Pedestal	Staff table with pedestal
Executive Chairs	Staff chairs with full mechanism finish
Conference table	Conference table with veneer on top & melamine finish
Doors	Providing of doors with frame for the Control room.
Exceutive chairs	Supply of executive chairs
Sofas	Supply of single seater full upholstered sofa chair using art leather, 8ö foam
Wall paneling	Wooden wall paneling & natural veneer pasted above with 6mm Groove - 12mm Commercial plywood with 4mm natural teak / wall nut veneer pasted on top of plywood. (Brands preferred - Greenlam, Century, Kitply, Greenply and Hunsply)
Cross section for wooden paneling	Wooden frame with section 2öx 2ö cross section fixed to wall for paneling partition (Sal wood or acacia or teak wood)
Wooden flooring	Laying of wooden flooring for conference room approx. 1250 Sq. ft. (Brands preferred - Greenlam, Royal touch, Viesta and Euro)
Doors	Doors using Commercial plywood or block board of 30mm thickness with the matching veneer of 4mm thickness or better inside along with the accessories such as handles, locks, four SS hinges, two 6 inch tower bolts, etc., Size of the doors is 7 feet * 3 feet. (Brands preferred - Greenlam, Century, Kitply, Greenply and Hunsply).

2 Ton Air conditioners of 5 star rating (4 Nos.)

Description	Specifications
Cooling capacity	> 6.0 kW
Capacity (Tonnage)	2.0 TR

Energy Efficiency Rating	>3.5
Condenser	Anti-corrosive copper condenser
Compressor	Dual Rotary
Input Power	< 2000 Watts
Running Current	8.9 Amps
Filter Type	Micro Dust Protection Filter
Auto Air Wing	Should Comply
Power Source(/V/Hz)	1/ 230/ 50
Piping Length (Max, m), Piping Height (Max, m)	10 , 10
SVC Valve (Liquid (ODxL), SVC Valve (Gas (ODxL)	6.35 , 15.88
Moisture Removal (l/hr)	2.5
Air Circulation (Cooling, m ³ /min)	×21
Refrigerant (Type)	R410A
Low Ambient (Cooling,)	16 ~ 52
Outdoor Unit (Compressor Type)	Brushless DC motor
Power Consumption (Cooling, W)	< =2000
Remote controller	Wireless Back lit LCD
Warranty and comprehensive maintenance	5 year for all parts.

Voltage Stabilizer for air conditioners (4 Nos.)

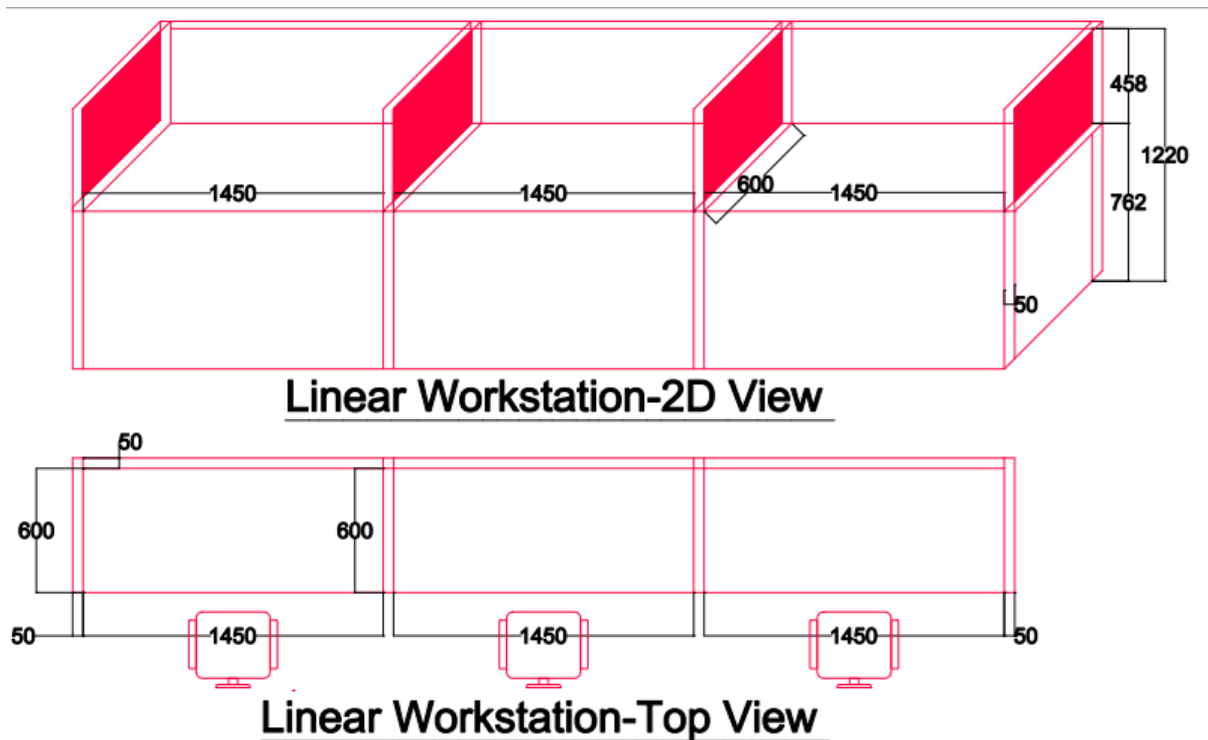
Description	Specifications
Input Current	15 A
Input Voltage	170V - 270V
Cabinet Material	ABS
Application	Up to 2 Ton
Warranty and Comprehensive maintenance	5 Years
Time Delay	ITDS 3Min ±20 sec

Workstation Furniture

Frame

- (a) The partition panels shall be tile based & shall have overall minimum thickness of 50 mm.
- (b) The frame work shall be made of Knockdown metal frame comprising of vertical sections made from minimum 1.0 mm CRCA (Cold Rolled Cold Annealed) MS grade $\pm\phi$ as per IS:513-1994 formed into channels of minimum size 40mm X 50mm duly powder coated (coating thickness 50 to 60 micron).

- (c) These vertical channels shall have suitable and sturdy arrangement to accept tile cladding.
- (d) All exposed vertical edges of partition panels shall be finished with contoured edged powder coated Aluminum section of minimum 1mm thickness as per grade He-9-63400 as per IS: 733-1983 (or Latest if any).
- (e) Connectors shall be of die cast aluminum with a waterfall edge for a continuous transition from horizontal to vertical trim.
- (f) Raceway consisting of powder coated section minimum 1 mm thick of CRCA MS grade $\pm\text{D}\phi$ as per IS: 513-1994 of approved shade shall be provided of minimum 100mm size at two levels as shown in drawings of workstation attached.
- (g) Panel should have cutouts of required sizes for installing electrical switch boards. (Two UPS along with one networking and one telephone point) as per drawings
- (h) There shall be separate slots for passage of data and electrical wires.
- (i) The frames should be designed to easily handle CAT 6 wires at entry points.
- (j) Tiles shall be offered for options as per attached drawing, i.e. Fabric tile (tackable/ Acoustic /Pin up Tile) and Laminate Tile/ GlassTile /white board.
- (k) End cap, Inline Cap, Universal Caps shall be of Aluminium extrusions.
- (l) Top & Vertical trim shall be made up of Aluminium extrusions.
- (m) 2 way / 3 way post shall be made up of minimum 1mm CRCA material.
- (n) Connectors ϕ 2 way / 3 way shall be of Aluminum Die Cast.



Workstation Chairs (12 Nos.)

- (a) Medium back rest ergonomically designed revolving chairs with metal base.

- (b) The chair should have a hydraulic gas-lift (As per DIN 4550 2004-12 ó class 3) for seat height adjustment.
- (c) Fabric shall be fire retardant (As per ASTM D 1230-1994, IS: 11871-1986) and black or grey in colour.
- (d) The seat should be PU-cushioned with Net Back.
- (e) The chair base should be of metal base (BIFMA 5.1) for strength with nylon wheels (As per ANSI/BIFMA X5.1-2002).
- (f) There should be fixed armrest and push-back.

Chairs for conference table (20 Nos.)

Description	Specification
Seat and back	To be made of 1.2 cm thick hot pressed plywood upholstered with fabric over molded high resilience polyurethane foam
Design	Lumber support type
Seat size	(width X depth) 500 mm X 500 mm (\pm 25 mm)
Back Size	(width X height) 500 mm X 650 mm (\pm 25 mm)
Back rest features	Sliding type with range of 70 mm (\pm 15 mm) and ~ 5 locking positions
Molded polyurethane foam density and hardness Density	Density - 55 +/- 2 Kg/m ³ Hardness - 16 +/- 2 N (as per IS-7888 at 25% compression)
Armrest feature	Height adjustable (up to 75mm \pm 15 mm in 8 strokes)
Chair features	360 degree revolving type, single point control, front pivot with tilt with feet resting on ground ensuring more comfort, tilt tension adjustment, 4 position locking with anti shock feature, Seat / Back tilt ratio of 1:2
Pneumatic seat height adjustment	100 mm (\pm 15 mm)
Chair pedestal features	Should have five prong with injection molded in 30% glass-filled nylon and fitted with 5 Nos. of twin wheel castors of size 50 mm. Wheel PCD of 75 cm
Overall dimensions	W ó 750 mm x D ó 750 mm x H ó 900 ó 1100 mm, SH ó 450 ó 550 mm. (Tolerance on all dimensions \pm 25 mm)
Warranty and maintenance	5 years.