

VOLUME II

COMMERCIAL CUM TECHNICAL BID

**FOR
SUPPLY, INSTALLATION, TESTING
AND COMMISSIONING (SITC) OF
BUILDING MANAGEMENT SYSTEM**

**FOR
NATIONAL INSTITUTE OF SECURITIES MARKETS**

AT

**Plot No. IS– 1 & IS-2 (Opp. HDFC Bank, Rasayani Branch),
Patalganga Industrial Area, Village
Mohopada(Wasambe), Taluka – Khalapur, District Raigad,
Pin code – 410 222**

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NOTICE INVITING TENDERS

Dear Sir/s,

Sub: SITC of Building Management System for NISM campus at Patalganga

1. Sealed item rate tenders are hereby invited by National Institute of Securities Markets (NISM) for the captioned project in three bid system.
2. The estimated cost of the work is Rs. 170 Lakh. Agreement will be entered into with the successful tenderer on prescribed format. Tenderer shall quote his rates as per various terms and conditions of the tender document which will form part of the Agreement.
3. The work is to be completed in a period of 90 calendar days from the 10th day of date of issue of work order or from the first day when the contractor is instructed to take over the possession of the site whichever is later. Time is the essence of the Contract and work shall be completed in all respects in contractual time period.
4. Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders, the form and nature of the site, the means of access to the site, the accommodation they may require and themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site whether or not the site is inspected by the tenderer and no extra charges shall be entertained on account of any misunderstanding or otherwise about the facilities and / or conditions at site. The tenderer shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the tender document. Submission of a tender by a tenderer categorically implies that he has read this notice and all other terms and conditions of the tender document and has made himself fully aware of the scope and specifications of the work to be done and local conditions and other factors having bearing on the execution of the work and have complete clarity about all these aspects.
5. **Tendering Process will be as under:**
 - i) The tender documents shall be issued or downloaded as under:
 - a) Eligibility Bid (Volume I)
 - b) Commercial cum Technical Bid (Volume II)
 - c) Price Bid (Volume III)

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- ii) The tenderer is required to submit 4 (four) separate envelopes as mentioned below:
- a) Envelope I containing “Earnest Money Deposit only” in the prescribed manner.
 - b) Envelope II containing “Eligibility Bid only” along with required enclosures and details.
 - c) Envelope III containing “Commercial cum technical bid only” without any conditions duly signed and stamped.
 - d) Envelope IV containing “price bid only” without any conditions duly filled in.

All the above 4 (four) sealed envelopes shall then be placed in another single outer envelope and submitted on the following address:

The Senior Vice President (Estates & Premises Management Department),
National Institute of Securities Markets (NISM),
NISM Bhavan, 5th Floor, Plot No. 82,
Sector 17, Vashi, (Next to Vashi Plaza)
Navi Mumbai 400 703

Upto 1500 hrs.on or before the last date of receipt of tenders i.e. January 04, 2018.

Tender(s) received after due date and time specified for receipt of tender will not be accepted under any circumstances.

6. **Important dates :**

The tenderers are requested to make note of the following important dates:

- a) Pre-bid Conference shall be held in the Ground floor meeting room of Orientation block, NISM campus, plot no. IS- 1 & IS-2 (Opp. HDFC Bank, Rasayani Branch), Patalganga Industrial Area, Village Mohopada (Wasambe), Taluka – Khalapur, District Raigad, Pin code – 410 222 at 11:00 a.m. on December 20, 2017 to clarify any points that the intending tenderers may have regarding the eligibility criteria, commercial conditions, technical conditions, price bid etc.
- b) Last date of receipt of tenders including Earnest Money Deposit, Eligibility Bid, Commercial cum Technical Bid and the Price Bid upto **1500 hrs. on January 04, 2018.**

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- c) Date of Opening of tenders (only envelope-I containing EMD) in the office of undersigned at **1530 hrs. on January 04, 2018.**
 - d) Date of receipt of revised price bids, if required, in the specified manner shall be intimated subsequently.
 - e) Date of opening of price bid / revised price bids, shall be intimated subsequently.
7. On the date stipulated for opening of tenders, the envelope-I superscribed "Earnest Money Deposit only" will be opened first. The tender of the tenderer who does not submit EMD of the required amount in the prescribed form shall not be considered for further evaluation.
8. Thereafter, the envelope-II superscribed "Eligibility Bid only" shall be opened by NISM and the scrutiny and evaluation of Eligibility bid shall be done by NISM based on the parameters specified in the Eligibility Bid. In case, additional information / clarifications are sought by NISM, from the tenderers, the same shall be furnished by the tenderers within the stipulated time as communicated to them. Non or partial submission by the tenderer within the stipulated period shall render their tender liable for rejection. Tenderers that fulfill eligibility criteria will only be considered for further evaluation.
9. Thereafter, the envelope-III super scribed "Commercial cum technical bid only" will be opened. The scrutiny and evaluation of Commercial cum technical bid shall be done by NISM and in case no clarifications / additional information is required, then the price bids shall be opened in presence of the tenderers who wish to be present during price bid opening. In case, additional information / clarifications are sought by NISM, from the tenderers, the same shall be furnished by the tenderers within the stipulated time as communicated to them. Non or partial submission by the tenderer within the stipulated period shall render their tender liable for rejection.
10. Depending upon the changes / modifications made in scope of work, technical specifications, terms and conditions etc., if any, the tenderers shall be advised to submit fresh rates which may be either increase or decrease in their quoted rates and consequently resulting in increase or decrease in the amount. This plus or minus in the quoted rate / amount shall be given in the form of a letter in a sealed envelope suitably superscribed with the "Name of the Work" and the words "Revised price bid only" by the tenderers and submitted up to the date and time communicated to them. The Revised Price Bids, if having any condition(s) and / or any conditional rebate, shall be summarily rejected and shall not be considered for further evaluation. The tenders of the tenderers who do not respond for revised price bid, within the stipulated date communicated to them, shall stand rejected. **The date of opening of price bid / revised price bid will be intimated to all the eligible tenderer. The work shall be awarded to the lowest tenderer.**

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11. Interest free Earnest Money Deposit (EMD) of Rs. 3,40,000/- (Rupees Three Lakh Forty Thousand Only) in form of Demand Draft / Banker's cheque / Pay Order in favour of **National Institute of Securities Markets**, payable at **Mumbai**, must accompany the tender. Alternatively, tenderer can also submit EMD in form of Bank Guarantee which will be valid till March 03, 2018. In case, the work is awarded to the tenderer, the validity of EMD, if submitted in form of Bank Guarantee will be extended till expiry of defects liability period of 12 months from the scheduled date of completion plus 30 (thirty) days towards grace period. Cheques for EMD will not be accepted. Tenders accompanying cheques will stand summarily rejected. EMD will not bear any interest.
12. EMD will be forfeited in the event of any erosion, refusal and / or delay on the part of tenderer to sign and / or execute the Agreement on acceptance of his tender. EMD will be forfeited in case the contractor fails to commence the work awarded to him within the prescribed time limit. EMD's of unsuccessful tenderers will be refunded.
13. Tenders of the contractors, who do not deposit the EMD in the above manner, shall stand rejected.
14. On award of the work, the tenderer shall submit performance guarantee for an amount of Rs. 25 Lakh. The tenderer shall submit performance guarantee in the form of Demand Draft / Banker's cheque / Pay Order in favour of **National Institute of Securities Markets**, payable at **Mumbai**. Alternatively, tenderer can also submit performance guarantee in form of Bank Guarantee which will be valid till 1 month after the scheduled completion period plus 30 days towards grace period.
15. The sum of Earnest Money Deposit and Performance Guarantee constitute the security deposit. Security deposit equivalent to Performance Guarantee will be released after one month of the date of completion of work as certified by the Employer. Security deposit equivalent to EMD will be released after expiry of the defects liability period of 12 months after taking into account of the expenditure incurred by NISM to get the defects repaired, if any, intimated to the contractor during defects liability period of 12 months. Accordingly, the contractor shall be required to extend the validity of bank guarantees towards EMD and performance guarantee, in case, the work is completed beyond the stipulated completion period, for which no extra payment shall be made to the contractor.
16. NISM is not bound to accept the lowest and / or any other tender and reserves the authority to reject any and / or all the tenders received without assigning any reason. Any tender, in which any of the prescribed condition is not fulfilled and / or any condition including that of conditional rebate is put forth by the tenderer, shall be summarily rejected.
17. NISM reserves the right for accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rates quoted. In such case, NISM also reserves the right to award the balance part of the tender and / or any other contracts to other contractor at the sole discretion of NISM. The decision of NISM in

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this regard shall be final and binding on the contractor and no claim of whatsoever nature shall be entertained from the contractor on this account.

18. The tender for the work shall remain open for acceptance for a period of sixty calendar days from the date of price bid / revised price bid. If any tenderer withdraws his tender before the same period and / or makes any modifications in the terms and conditions of the tender which are not acceptable to NISM, then NISM shall, without prejudice to any other right and / or remedy, be at liberty to forfeit the said EMD and realize the money.
19. All the rates mentioned in the tender should be inclusive of material including wastages , equipment and labour cost, etc. including loading & unloading, freight, GST, all taxes and duties, royalties, installation, tools, tackles, supervision, overheads and profits, statutory charges, costs for licenses and any other expenditure etc. required for successful commissioning of the system. Further, the rates shall remain firm till completion of the work. No extra payment on account of any reason, whatsoever, shall be made beyond quoted rates. Escalation in rates(s) will not be payable for whatsoever reasons. The Contractor should render his complete services to take up the work at the captioned site all inclusive.
20. This Notice Inviting Tender shall form part of the agreement. The successful tenderer / contractor, on acceptance of his tender by NISM shall, within 15 calendar days from the stipulated date of commencement of work, sign the Agreement consisting of notice inviting tender, general and special conditions of contract, technical specifications, etc., forming the tender, as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.

UNDERTAKING

1. I / We have read and examined the notice inviting tender, specifications applicable, scheme, general and special conditions of contract, price bid and other documents and rules referred to in the conditions of contract and all other contents in the tender document for the work.
2. I / We hereby tender on item rate basis for the execution of the work specified, for NISM within the time specified and in accordance in all respects with the specifications, designs and instructions in writing referred to and with such materials as are provided for or displayed / explained during the pre-bid meeting, by, and in all respects in accordance with, such conditions so far as applicable.
3. We agree to keep the tender open for sixty (60) calendar days from the due date of opening of price bid / revised price bid and not to make any modifications in its terms and conditions. Even if any modification is communicated by us within the validity period of 60 calendar days, after submitting the tender, such communication shall have no bearing and cognizance.
4. We confirm that we have deposited EMD in the prescribed manner. If I/we, fail to commence the work as per the time specified, I/we agree that NISM shall without prejudice to any other right and / or remedy, be at liberty to forfeit the said EMD absolutely otherwise the said EMD shall be retained by NISM towards security deposit to execute all the works referred to in the tender document upon the terms and conditions contained or referred to therein.
5. I / We hereby declare that I / we shall treat the tender document and other records connected with the work as secret / confidential documents and shall not communicate information / derived therefrom to any person other than a person to whom I/we am/are authorized to communicate the same or use the information in any manner prejudicial to the safety and interest of the Employer.
6. In the event of this tender being accepted, I/We agree to enter into and execute the necessary agreement required by you. I/We do hereby bind myself/ourselves to the conditions of agreement in this regard.

Dated

Signature of the Authorized Person on behalf of
Tenderer with Seal

Postal Address:

GENERAL RULES AND DIRECTIONS

1. Any person who submits a tender shall fill up the price bid, stating at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other condition of any sort including conditional rebates, will be summarily rejected.

The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring upto fifty paise and considering more than fifty paise as rupee one.

2. Tenders will be opened in the presence of any intending tenderers who wish to be present at the time.
3. Rates quoted by the contractor in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the rates quoted by the contractor will be considered unless otherwise proved be taken as correct and not the amount.
4. The tenderer is required to quote for all the items mentioned in price bid. In case the tenderer does not quote for any of the item/s, he will be required to execute such items at without any financial implication to the Employer to the extent of quantity/ies mentioned in the price bid. No payment for executing such items will be made by the Employer.
5. All rates shall be quoted in price bid. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the work 'Rs.' Should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs.2.15 P' and in case of words, the word, 'Rupees' should precede and the word 'Paise' should be written at the end. Unless the rate is in whole rupees and followed by the word 'only' it should invariably be upto two decimal places. While quoting the rate in price bid, the word 'only' should be written closely following the amount and it should not be written in the next line.
6. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Employer / Site Engineer shall be communicated in writing by the contractor to Employer.

7. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and Employer may in his discretion without prejudice to any other right or remedy available in law shall have liberty to cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

**Signature of Authorized Person
on behalf of Tenderer with Seal**

NISM

Integrity Pact

To,

.....,

.....,

.....

**Sub: Supply, installation, testing and commissioning (SITC) of
Building Management System for National Institute of Securities Markets
at Plot no. IS- 1 & IS-2 (opp. HDFC bank, Rasayani branch), Patalganga industrial area,
village Mohopada (Wasambe), Taluka – Khalapur, District Raigad, Pin code – 410 222**

Dear Sir,

It is hereby declared that NISM is committed to follow the principle of transparency, equity and competitiveness in public procurement. The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Tenderer will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer/Tenderer will stand disqualified from the tendering process and the bid of the Tenderer would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the NISM.

Yours faithfully,

Sr. Vice President (EPMD)

Integrity Pact

To

The Senior Vice President,
Estates & Premises Management Department,
National Institute of Securities Markets (NISM),
NISM Bhavan, 5th Floor, Plot No. 82,
Sector 17, Vashi, (Next to Vashi Plaza)
Navi Mumbai 400 703

**Supply, installation, testing and commissioning(SITC) of
Building Management System for National Institute of Securities Markets
at Plot no. IS- 1 &IS-2 (opp. HDFC bank, Rasayani branch), Patalganga Industrial Area,
Village Mohopada (Wasambe), Taluka – Khalapur, District Raigad, Pin code – 410 222**

Dear Sir,

I/We acknowledge that NISM is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tenders (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by NISM. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, NISM shall have unqualified, absolute and unfettered right to disqualify the tenderer and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully

Signature of the Authorized Person on behalf of Tenderer with Seal

**To be signed by the Tenderer and same signatory
Competent / Authorized to sign the relevant agreement on behalf of NISM.**

Integrity Agreement

This Integrity Agreement is made at on thisday of 20.....

BETWEEN

National Institute of Securities Markets through
_____ (Hereinafter referred as the Principal/Owner', which
expression shall unless repugnant to the meaning or context hereof include its successors and
permitted assigns)

AND

.....(Name and Address of the
Tenderer / Contractor which expression shall unless repugnant to the meaning or context
here of include its successors and permitted assigns)
through..... (Details of duly authorized signatory on
behalf of Contractor)

Preamble

WHEREAS the Principal / Owner has floated the tender and intends to award, under laid down organizational procedure, contract for "Supply, installation, testing and commissioning (SITC) of Building Management System for National Institute of Securities Markets at Plot no. IS- 1 & IS-2 (opp. HDFC bank, Rasayani branch), Patalganga Industrial Area, Village Mohopada (Wasambe), Taluka – Khalapur, District Raigad, Pin code – 410 222" hereinafter referred to as the "Agreement / Contract".

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Tenderer(s) and Contractor(s). AND WHEREAS to meet the purpose aforesaid, both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

(a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

(b) The Principal/Owner will, during the Tender process, treat all Tenderer(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Tenderer(s) the same information and will not provide to any Tenderer(s) confidential / additional information through which the Tenderer(s) could obtain an advantage in relation to the Tender process or the Contract execution.

(c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Tenderer(s)/Contractor(s)

1) It is required that each Tenderer/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

2) The Tenderer(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

a) The Tenderer(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.

b) The Tenderer(s)/Contractor(s) will not enter with other Tenderer(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in

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particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.

c) The Tenderer(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Tenderer(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted Electronically.

d) The Tenderer(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/ representatives in India, if any. Similarly Tenderer(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

e) The Tenderer(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

3) The Tenderer(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

4) The Tenderer(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.

5) The Tenderer(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Tenderer(s)/Contractor(s)

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and the Tenderer/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- 1) If the Tenderer(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Tenderer(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Tenderer/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
- 2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Tenderer(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Tenderer/Contractor.
- 3) Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a Tenderer or Contractor, or of an employee or a representative or an associate of a Tenderer or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Tenderer declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Tenderer makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Tenderer/Contractor as deemed fit by the Principal/ Owner.
- 3) If the Tenderer/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Tenderers/Contractors/Subcontractors

- 1) The Tenderer(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Tenderer/Contractor shall be

responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/ sub-vendors.

2) The Principal/Owner will enter into Pacts on identical terms as this one with all Tenderers and Contractors.

3) The Principal/Owner will disqualify Tenderers, who do not submit, the duly signed Pact between the Principal/Owner and the Tenderer, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/ Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other Tenderers, till the Contract has been awarded. If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/ determined by the Competent Authority, NISM.

Article 7- Other Provisions

1) This Pact is subject to Indian Law, place of performance and jurisdiction is Mumbai /Navi Mumbai.

2) Changes and supplements need to be made in writing. Side agreements have not been made.

3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8- Legal and Prior Rights

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies

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aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact. IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

..... (For and on behalf of Principal/Owner)

..... (For and on behalf of Tenderer/Contractor)

WITNESSES:

1..... (Signature, name and address)

2..... (Signature, name and address)

Place:

Dated:

APPENDIX TO CONDITIONS OF CONTRACT

1. Name of Work	: SITC of Building Management System for NISM campus at Patalganga.
2. Location	: NISM campus situated at plot no. IS- 1 & IS-2 (Opp. HDFC Bank, Rasayani Branch), Patalganga Industrial Area, Village Mohopada (Wasambe), Taluka – Khalapur, District Raigad, Pin code – 410 222
3. Earnest Money Deposit	: Rs. 3,40,000/- (Rupees Three Lakh Forty Thousand Only) by Demand Draft / Banker's cheque / Pay Order / Bank Guarantee.
4. Validity of tender	: Sixty (60) calendar days from the due date of opening of price bid / revised price bid.
5. Price escalation	: No upward revision of rates will be accepted after opening of the tender on account of any reasons whatsoever. The rates at which the work order is finally placed on the successful tenderer shall be valid till the completion of the work. No escalation or increase in the rates on account of any reasons whatsoever shall be paid.
6. Variation in quantities	: The quantities mentioned in the price bid are indicative only. The quantities may vary and the contractor has to execute the work at the rates quoted by them. No extra rate on account of deviation in tender quantities and actual executed quantities shall be paid to the contractor. The final payment shall be made based on actual work executed at site based on the joint measurements and quoted rates.
7. Date of commencement	: 10th day from the date of issue of work order or the day on which the contractor is instructed to take the possession of the site whichever is later.
8. Completion period	: 90 calendar days from the date of commencement of work
9. Liquidated Damages	: 1% of the final bill value per week of delay, subject to a maximum of 10% of the final bill value.

10. Defects liability period : 12 months from the date of completion of the work as certified by the Employer.
11. Period of attending defects during defects liability period : Maximum 7 (seven) calendar days from date of intimation in writing / email. If the contractor fails to attend the work within 7 calendar days, the Employer may get the same executed directly through some other agency at the risk and cost of the contractor. The actual amount incurred by the Employer will be recovered from the Security Deposit, available with the Employer. The decision of Employer, in this regard, will be final and binding.
12. Value of works for interim payment : Rs. 30.00 lakh (Rupees Thirty Lakh Only) (minimum)
13. Insurance policy : Following insurance policies will be submitted by the contractor, before commencing the execution of the work:
- 1) Contractor All Risk Insurance Policy for an amount 1.25 times the work order amount for this work.
 - 2) Workmen compensation policy for the workmen employed by the contractor at the site of work.
14. Period for making payment of running account bill : Within 7 working days after receipt of contractor's bill in the specified format subject to the bill is found to be in order by the Employer with no discrepancies.
15. Period of submission of final bill by the contractor : Within one month from the date of completion of the work as certified by the Employer.
16. Period for honouring final bill : Within 15 days after receipt of contractor's bill in the specified format subject to the bill is found to be in order by the Employer with no discrepancies.

We agree to the terms incorporated above.

Date:

**Signature of Contractor
(Seal)**

GENERAL CONDITIONS OF CONTRACT

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1. Definitions

'The Agreement' means the documents forming the tender and acceptance thereof and the formal document signed by NISM and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued by the Employer time to time and all these documents taken together, shall be deemed to form one agreement and shall be complementary to one another.

In the agreement, the following expressions shall, unless the context otherwise requires, have the meaning hereby respectively assigned to them.

- 1.1 **'Agreement / Contract amount'** means the value of the entire work as stipulated in the work order conveying acceptance of the tender subject to such additions thereto or deductions there from as may be made under the provision herein after contained.
- 1.2 **'Contractor or Contractors'** means the firm or agency or individual engaged by the Institute to execute the work. It shall also include their legal representative(s), successors or assigns.
- 1.3 **'Day'** means a calendar day beginning and ending at 00 Hrs and 24 hrs respectively.
- 1.4 **'Drawings'** means the drawings prepared by the Architect and issued by the Site Engineer and referred to in the specifications and any modifications of such drawings as may be issued by the Employer / Site Engineer from time to time.
- 1.5 **'EIC'** means the Senior Vice President (Estates and Premises Management Department) or any other person authorized by the Institute.
- 1.6 **'Local Controlling Authority'** means the Local Municipal Authority or any other appropriate statutory authority viz. MIDC, Town Planning Department, Town Development Authority, Town/City Improvement Trust, Electricity Board, Water and Sewerage Department, Civil Aviation Authority, High-rise Building Committee, Lift Inspectorate, Telephone Department, Pollution Control Board, Fire Authority and any other authorities as the case may be according to whose rules and regulations a building within its jurisdiction is to be designed and approval of the drawings to be obtained.
- 1.7 **'Month'** means calendar month.
- 1.8 **'Market Rate'** means the rate as decided by the Employer based on the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned elsewhere to cover, all overheads and profits

- 1.9 **'NISM / Employer / Institute'** means National Institute of Securities Markets (NISM) having its office at Plot No. 82, Sector 17, Vashi, Navi Mumbai 400 703 and includes its representatives, successors and assigns.
- 1.10 **'Sanctioning Authority'** means authority nominated to exercise power of approval, sanction and acceptance concerning administrative, financial and technical aspects of transactions done on behalf of the Institute.
- 1.11 **'Schedule(s)'** referred to in these conditions mean the relevant schedule(s) annexed to the tender papers.
- 1.12 **'Site'** means the premises, into or through which work is to be executed under the contract or any adjacent premises which may be allotted or used for the purpose of carrying out the contract.
- 1.13 **'Site Engineer'** means an Engineer appointed by the Employer as their representative to give instructions and supervise the work of the contractor at site.
- 1.14 **'Specifications'** means the specifications referred to in the tender and any modifications thereof as may be furnished or approved by the Employer time to time.
- 1.15 **'Week'** means seven consecutive days.
- 1.16 **'Works' or 'work'** means the permanent or temporary work(s) described in the 'Scope of Work' and/or to be executed in accordance with the agreement and includes materials, apparatus, equipment, temporary supports, fittings and things of all kinds to be provided, the obligations of the contractor hereunder and work to be done by the contractor under the agreement.

2. Scope and performance

Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.

3. Work to be carried out

The work to be carried out under the agreement shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the work. The descriptions given in the price bid shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all

other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

4. Sufficiency of Tender

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates quoted in the Price Bid, which rates shall, except as otherwise provided, cover all his obligations under the agreement and all matters and things necessary for the proper completion and maintenance of the works during Defects Liability Period.

5. Scope of Work

The contractor shall carry out complete and maintain the said work in every respect in accordance with this agreement and with the directions of and to the satisfaction of the Employer. The Employer from time to time issue further instructions, details, directions and explanations which are hereafter collectively referred to as Employer's instructions in regard to the variation or modification of the design, quality or quantity of work or addition or omission or substitution of any work. Any discrepancy between the price bid and/or specifications should be brought to the notice of Employer before taking up the work.

6. Discrepancies and Adjustment of Errors

6.1 The several documents forming the contract are to be taken as mutually explanatory of one another.

6.2 Any error in description, quantity or rate in price bid or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to specifications or from any of his obligations under the contract.

6.3 Unless otherwise specified, latest CPWD Specifications for respective works shall be followed in general. Any additional item of work, if taken up subsequently, shall also conform to the relevant latest CPWD specifications. Should there be any difference or discrepancy between the description of items as given in the price bid, technical specifications mentioned in the tender documents, general and special conditions of contract, I.S. Codes, drawings etc., the following order of preference shall be observed :

- i) Description of items as given in price bid.
- ii) Technical specifications.
- iii) Special conditions of contract

- iv) General conditions of contract
- v) CPWD specifications.
- vi) I.S. Codes.
- vii) Drawings
- viii) Decision of Employer / Site Engineer, if above precedence is unable to resolve the discrepancy.

7. Work Order

Within the validity period of the tender, the Employer shall issue a work order to enter into an agreement for execution of the work as per the terms of the tender. The work order shall constitute a binding contract between the Employer and the Contractor.

8. Agreement

On receipt of work order from the Employer, the successful tenderer shall be bound to implement the agreement and within 15 calendar days from the stipulated date of commencement of work, sign the agreement (format as per *Annexure*) on a non judicial stamp paper of appropriate value. The contractor shall be furnished; one certified copy of the agreement. None of these documents shall be used for any purpose other than that of this contract.

9. Language

The language in which the agreement shall be drawn shall be English.

10. Security Deposit

a) Earnest Money Deposit (EMD)

Interest free Earnest Money Deposit (EMD) as specified under 'Appendix to Conditions of Contract' in form of Demand Draft / Banker's cheque / Pay Order in favour of **National Institute of Securities Markets**, payable at **Mumbai**, must accompany the tender. Alternatively, tenderer can also submit EMD in form of Bank Guarantee as specified earlier. In case, the work is awarded to the tenderer, the validity of EMD, if submitted in form of Bank Guarantee will be extended till expiry of defects liability period of 12 months from the scheduled date of completion plus 30 days towards grace period. Cheques for EMD will not be accepted. Tenders accompanying cheques will stand summarily rejected. EMD will not bear any interest.

EMD will be forfeited in the event of any erosion, refusal and / or delay on the part of tenderer to sign and / or execute the agreement on acceptance of his tender. EMD will be forfeited in case the contractor fails to commence the work awarded to him within the prescribed time limit. EMD's of unsuccessful tenderers will be refunded.

Tenders of the contractors, who do not deposit the EMD in the above manner, shall stand rejected.

b) Performance Guarantee

On award of the work, the tenderer shall submit performance guarantee for an amount of Rs. 25 Lakh. The tenderer shall submit performance guarantee in the form of Demand Draft / Banker's cheque / Pay Order in favour of **National Institute of Securities Markets**, payable at **Mumbai**. Alternatively, tenderer can also submit performance guarantee in form of Bank Guarantee which will be valid till 1 month after the scheduled completion period plus 30 days towards grace period.

The sum of Earnest Money Deposit and Performance Guarantee constitute the security deposit. Security deposit equivalent to Performance Guarantee will be released after one month of the date of completion of work as certified by the Employer. Security deposit equivalent to EMD will be released after expiry of the defects liability period of one year as specified in the contract after taking into account of the expenditure incurred by NISM to get the defects repaired, if any, intimated to the contractor during defects liability period of one year. Accordingly, the contractor shall be required to extend the validity of bank guarantees towards EMD and performance guarantee, in case, the work is completed beyond the stipulated completion period, for which no extra payment shall be made to the contractor.

11. Liquidated Damages

Time is the essence of the contract. If the contractor fails to maintain the required progress as per the stipulated time period or complete the work and clear the site on or before the contractual or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the Employer on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated under '*Appendix To Conditions Of Contract*'.

The amount of compensation may be adjusted or set off against any sum payable to the Contractor under this contract with the Employer.

12. Secured Advance

No secured advance will be paid for any of the materials brought to site for carrying out the works under this contract.

13. Mobilization Advance

No mobilization advance will be paid for this agreement.

14. Escalation

No escalation and payment due to increase in prices / wages will be made to the contractor. The rates quoted by the contractor shall remain firm throughout till completion of the work and nothing extra beyond unit rates shall be paid on account of any reason whatsoever.

15. Instructions

The Employer shall furnish with reasonable promptness additional instructions by means of drawings or otherwise necessary for proper execution of the work at site. All such drawings and instructions shall be consistent with the agreement, true developments thereof and reasonably inferable there from.

16. Setting out Work

The contractor shall set out the work and shall be responsible for the true and perfect setting out of the same including correctness of the positions, levels, dimensions, and alignment of all parts thereof. The contractor shall get it approved from the Site Engineer before commencing and proceeding with the work. If at any time, any error in this respect appears during the progress of the works, irrespective of the fact that the layout had been approved by the Site Engineer; the contractor shall be responsible for the same. The contractor shall at his own expenses rectify such error, if so, required to satisfaction of the Employer / Site Engineer.

17. Drawings and Materials

The contractor would be required to submit the following for approval before commencement of the work:

- a) Technical submittal/ catalogue / brochures of all equipment to Engineer -In-Charge for approval. Only after approval of Engineer -In-Charge, contractor should place order for equipment and bring it to site.
- b) All general arrangement and shop drawings.
- c) Complete layout dimensions for every unit/group of units with dimensions required for erection purposes.
- d) Any other drawing/information not specifically/mentioned above but deemed to be necessary for the job by the contractor.

The work shall start only after material, equipment and shop drawings are approved by the Engineer-in-Charge. Time period for completion of work includes 7 working days required for approval of shop drawings and equipment by the Engineer -In-

Charge.

Based on the above approvals and site requirement, the agency shall bring various equipment & materials at site for execution of the work. Excess material, if any, shall not be accepted & paid for by the Employer.

The contractor shall, at his own expense, provide all materials, required for the works and no material required for carrying out the work shall be supplied by the Employer.

In addition, the contractor shall, at his own expense and without delay, supply to the Employer / Site Engineer samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the agreement. The contractor shall, if requested by the Employer / Site Engineer furnish proof, to the satisfaction of the Employer / Site Engineer that the materials so comply. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site, detailed literature/test certificate of the same shall be provided to the satisfaction of the Employer. Before submitting the sample/literature, the contractor shall satisfy himself that the material/equipment for which he is submitting the samples/literature, meet with the requirement of tender specification. The Employer / Site Engineer shall within one week of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples are approved by them or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Employer / Site Engineer for their approval fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Employer / Site Engineer shall be issued after the test results are received. Any delay that might occur in approving the samples for reasons of its not meeting the specifications or other discrepancies, inadequacy in furnishing samples of best qualities from various manufacturers and such other aspects causing delay on the approval of the materials / equipment etc. shall be to the account of the contractor.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Employer / Site Engineer. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Employer / Site Engineer may require for collecting and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Employer / Site Engineer and bear cost of samples of all the material. However, testing charges shall be borne by the Employer. The Employer / Site Engineer shall at all times have access to the works and to all workshops and

places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.

The Employer / Site Engineer shall have full powers to require the removal from the premises of all materials which in their opinion are not in accordance with the specifications and in case of default, the Employer / Site Engineer shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Employer / Site Engineer shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Employer / Site Engineer may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.

The materials shall be procured only from the manufacturers and their authorized dealers and documentary proof for such procurement and supply shall be produced by the contractor. The contractor shall have to produce all the relevant records to certify that the genuine equipment from the manufacturers has been supplied and erected. The department reserves the right to send such materials to the manufacturers / authorized test laboratory to verify the genuineness and quality of the product. The Contractor shall submit all documentary details in fulfillment of this conditions regarding procurement of materials. Contractor shall preserve the copies of invoices, test certificates, gate passes etc. to prove the genuineness of material/purchases from manufacturer or authorized dealers which are used at site as per agreement.

Unless otherwise specified, the contractor shall provide and pay for all materials, labour, tools, equipment transportation and any other facilities that are required for the satisfactory execution and completion of the work. Unless otherwise specified, all materials shall be new and workmanship and materials shall be of the best quality.

A list indicating names of various approved brands has been attached with the tender. The contractor shall, wherever, applicable use material as per the approved brand only.

18. Requirement of Technical Representative and recovery Rate

The contractor shall provide one no. Graduate Engineer with experience of 5 years during the contract period for supervising the work. In case, the aforesaid graduate Engineer is not deployed, recovery @ Rs. 25,000/- per month shall be made from the payment to be made to the contractor for the period of non deployment.

Further, the contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him. Workman whose work or behavior is found to be unsatisfactory by the Employer / Site Engineer, he shall be removed from the site

immediately. The decision of Employer / Site Engineer shall be final and binding on the contractor in this regard.

19. Inspection and testing

For items/equipment requiring initial inspection at manufacturer's work, the contractor will intimate the date of testing of equipment at the manufacturer's work before dispatch. The Employer reserves the right to inspect the fabrication job at factory and the successful tenderer has to make the arrangement for the same. The successful tenderer shall give sufficient advance notice regarding the dates proposed for such tests/inspection to the Employer's representative(s) to facilitate his presence during testing/fabrication. The Engineer-in-charge at his discretion may waive off such testing/fabrication. The cost of the Engineer's visit to the factory will be borne by the Employer.

Wherever applicable, copies of all documents of routine and type test certificates of the equipment, carried out at the manufacturer's premises shall be furnished to the Engineer-in-Charge.

20. Work to be executed in accordance with specifications, orders etc.

The contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Employer / Site Engineer and the contractor shall be furnished free of charge one copy of the agreement.

The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of execution.

21. Action in case Work not done as per Specifications

All works under or in course of execution or executed in pursuance of the agreements shall at all times be open and accessible to the inspection and supervision of the Employer / Site Engineer including all the superior officers and officer of the Quality Control Organization of the Institute and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for the purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

In such case, when the work is not done as per specifications, the Employer may not accept the item of work at the rates applicable under the agreement but may accept such items at reduced rates as the Employer may consider reasonable during the

preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the items and the structure or he may reject the work outright without any payment and / or get it and other connected and incidental items rectified, or remove and re-executed at the risk and cost of the contractor. Decision of the Employer to be conveyed in writing in respect of the same will be final and binding on the contractor.

If it shall appear to the Employer / Site Engineer, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall on demand in writing which shall be made within three months of the completion of the work from the Employer specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of failing to do so within a period specified by the Employer in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause for liquidated damages (for non-completion of the work in time) for this default.

22. Contractor to supply tools & plants etc.

The contractor shall provide at his own cost all materials, plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specification or other documents forming part of the agreement or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Employer as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighting and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing the same may be provided by the Employer at the expense of the contractor and the expenses may be deducted, from any money due to the contractor, under this agreement and / or from his security deposit.

23. Protection of works and property

The contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Employer's properties from injury or loss arising in connection with agreement. He shall make good any such damage, injury, loss resulting due to his fault or negligence except due to causes beyond his control.

He shall take adequate care and steps for protection of the other floors and adjacent properties. The contractor shall take all precautions for safety and protection of his employees on the works and shall comply with all applicable provisions of Govt. and local bodies safety laws and building codes to prevent accidents, or injuries to persons or property in or adjacent to his place of work. The contractor shall take insurance covers as specified elsewhere in the contract at his own cost. The policy shall be taken in joint names of the contractors and Employer.

In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained notwithstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any.

24. Assignment and subletting

The whole of work included in the agreement shall be executed by the contractor and he shall not directly entrust and engage or indirectly transfer assign or underlet the contract or any part or share thereof or interest therein without the written consent of the Employer and no undertaking shall relieve the contractor from the responsibility of the contractor from active superintendence of the work during its progress.

The work shall not be assigned or sublet without the written approval of the Employer. And if the contractor shall assign or sublet his work, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor, or any of his servants or agent to any public officer or person in the employment of Employer or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Employer shall have power to adopt any of the courses specified under clause of "when contract can be determined" hereof as the Employer may deem best suited to the interest of Employer and in the event of any of these courses being adopted the consequences specified in the said Clause of shall ensure.

25. Quantities

The rates quoted for various items shall remain valid for variation of quantity against individual item to any extent. The payment to the contractor shall be made as per the actual work executed based on the joint measurement and quoted unit rates for individual items.

26. Works to be measured

The Site Engineer shall, except as otherwise provided, ascertain and determine by measurement the value in accordance with the contract of work done.

All measurement of all items having financial value shall be entered in Measurement Book and / or level field book so that a complete record is obtained of all works performed under the agreement.

All measurements shall be taken jointly by the Site Engineer and by the contractor or his authorized representative from time to time during the progress of the works and such measurements shall be signed by the Site Engineer and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

If for any reason, the contractor or his authorized representative is not available and the work of recording measurements is suspended by the Site Engineer, the Employer shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing three (3) working days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Site Engineer shall be deemed to be accepted by the Contractor. All authorized extra work, omissions and all variations made shall be included in such measurements.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the CPWD specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by CPWD specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than three working days' notice to the Site Engineer before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Site Engineer who shall within the aforesaid period of three working days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Site Engineer's consent being obtained in writing, the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

The Employer may cause either themselves or through other representative of Employer to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and / or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

27. Certificate of payment

The contractor shall submit interim or running account bill once the value of the executed work exceeds the value of the work for interim certificate specified under the **Appendix to Conditions of Contract**. The contractor shall not be entitled to be paid any such interim payment if the gross work done, since the last such payment, is less than minimum value of interim bill in which case the interim bill shall be prepared after the requisite progress is achieved. Payment on account of amount admissible shall be made on certification of the Site Engineer to which the contractor is considered entitled by way of interim payment at such rates as decided by the Site Engineer. The amount admissible shall be paid by 7th working day after the day of certification of the bill by the Site Engineer. The Employer shall recover the statutory recoveries and any other dues from the certificate of payment.

All such interim payment shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Site Engineer relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate (s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is / are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Employer / Site Engineer under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided, without prejudice to the right of the Employer to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the Employer.

The Employer at his sole discretion on the basis of a certificate from the Site Engineer to the effect that the work has been completed upto the level in question, make

interim advance payments without detailed measurements for work done at 75% of the assessed value. The advance payments so allowed shall be adjusted in final bill by taking detailed measurements thereof.

The Employer shall have power to withhold the certificate if the work or any part thereof is not carried out to their satisfaction.

The following percentage of agreement rates for the various items included in the agreement shall be payable against the stage of work shown herein.

#	Stage of work	%age of Quoted Rate for Item
a)	On initial inspection of materials like DDC, DDC Panels, fire alarm equipment, sensors etc. and delivery at site in good condition on pro-rata basis.	75%
b)	On completion of pro-rata installation BMS, Fire devices, water Level system and other equipment as applicable	15%
c)	On completion of testing, commissioning and handing over of complete system to the Employer.	10%

28. Final Measurement

The final bill shall be submitted by the contractor duly supported by the joint measurements within one month of completion of the work. The Employer shall pay the amount within a period of 15 days from the date of certification by the site Engineer provided there is no dispute in respect of rates and quantities. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished.

29. Variations

No alteration, omission or variation ordered in writing by the Employer shall vitiate the agreement. In case the Employer thinks proper at any time during the progress of works to make any alteration in, or additions to or omission from the works or any alteration in the kind or quality of the materials to be used therein, the Employer shall give notice thereof in writing to the contractor or shall confirm in writing within seven working days of giving such oral instructions to the contractor and the contractor shall alter to, add to, or omit from as the case may be in accordance with such notice(s) but the contractor shall not do any extra work to or make any alteration or additions to or omissions from the works or any deviation from any of the provisions of the agreement, stipulations, specifications or agreement drawings

without previous consent in writing of the Employer and the value of such extras, alterations, additions or omissions shall in all cases be determined by the Employer and the same shall be added to or deducted from the agreement value, as the case may be.

30. Valuation of Variations

No claim for extra items shall be allowed unless it shall have been executed under the authority of the Employer. Payment for authorized extra items shall be made in accordance with the following provisions.

- a)
 - i) The net rates or prices in the agreement shall determine the valuation of the extra item where such extra item is of similar character and executed under similar conditions as the item priced herein.
 - ii) Rates for all items, wherever possible should be derived out of the rates given in the price bid.
- b) Where the extra items are not of similar character and/or not executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items or works are carried out, then the contractor shall inform the Employer of the rate which he intends to charge for such items of work, duly supported by analysis of the rate or rates claimed and the Employer shall fix such rates as in the circumstances in his opinion are reasonable and proper, based on the market rates.
- c) It is further clarified that for all such authorized extra items where rates cannot be derived from the tender, the contractor shall submit rates duly supported by rate analysis. The rate analysis shall be worked out by considering actual material rates including permissible wastages, labour as per prevailing market rate, plus 15% towards establishment charges, contractor's overheads and profit, etc. In addition, GST, as applicable, shall be payable for working out rates for extra items. However, such items shall not be eligible for escalation.

31. Work in shifts and holidays

For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, notwithstanding the fact that the Contractor may have to pay extra amount for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them. The contractor shall also obtain necessary permissions, if any, required from local authorities, society etc. for working during night / holidays at no extra cost to the Employer. Such work shall be carried out without unreasonable noise and disturbance to the other occupants of the campus.

32. Insurance of Works

Before commencing the execution of work, the Contractor shall, without in any way limiting his obligations and liabilities, insure at his own cost and expense against any damage or loss or injury, which may be caused to any person or property, at site of work. The Contractor shall obtain and submit to the Employer proper Contractor All Risk Insurance Policy for an amount 1.25 times the agreement amount for this work. The contractor shall also obtain necessary workmen compensation policy for the workmen employed by the contractor at the site of work. The Contractor shall, from time to time, provide documentary evidence as regards payment of premia for all the Insurance Policies for keeping them valid till the completion of the work. Without prejudice to any of its obligations and responsibilities specified above, the Contractor shall, within 10 calendar days from the date of work order, submit documentary evidence as required by the Employer. No work shall be commenced by the Contractor unless he obtains the Insurance Policies as mentioned above. Also, no payment shall be made to the Contractor on expiry of insurance policies unless renewed by the Contractor. Nothing extra shall be payable on this account. No claim of hindrance (or any other claim) shall be entertained from the contractor on these accounts.

All consignments are to be duly insured up to the destination from warehouse to warehouse at the cost of the supplier. The insurance covers shall be valid till the equipment are handed over duly installed, tested and commissioned.

33. Permits, Laws and Regulations

Permits and licences required for execution of the work shall be obtained by the contractor at his own expenses. The contractor shall give necessary notices and comply with the local regulations, laws, ordinances rules, applicable for execution of work. If the contractor performs any act which is against the local law, rules and regulations, he shall meet all the costs and consequences arising therefrom and shall indemnify the Employer against any legal actions arising there from.

34. Local Laws, Acts, Regulations

The contractor shall strictly adhere to all prevailing labour laws inclusive of contract labour (regulation and abolition act of 1970) and other safety regulations. The contractor shall comply with the provision of all labour legislation including the latest requirements of all the Acts, laws, any other regulations that are applicable to the execution of the project.

- i) Minimum Wages Act, 1948 (Amended)
- ii) Payment of Wages Act 1936 (Amended)
- iii) Workmen's Compensation Act 1923 (Amended)
- iv) Contract Labour Regulation and Abolition Act 1970 and Central Rules 1971 (Amended)
- v) Apprentice Act 1961 (Amended)

- vi) Industrial Employment (Standing Order) Act 1946 (Amended)
- vii) Personal Injuries (Compensation Insurance) Act 1963 and any other modifications
- viii) Employees' Provident Fund and Miscellaneous Provisions Act 1952 and amendment thereof.
- ix) Shop and Establishment Act
- x) Any other Act or enactment relating thereto and rules framed there under from time to time.

35. Commencement of Works

The date of commencement of the work will be reckoned as ten calendar days from the date of issue of work order by Employer or the first day when the contractor is instructed to take possession of the site whichever is later.

36. Time for completion

Time is the essence of the agreement and shall be strictly observed by the contractor. The entire work shall be completed within the period specified under appendix to conditions of agreement. If required in the agreement or as directed by the Employer, the contractor shall complete certain portions of work before completion of the entire work. However the completion date shall be reckoned as the date by which the whole work is completed as per the terms of the agreement.

37. Rate of progress

Whole of the materials, plant and labour to be provided by the contractor and the mode, manner and speed of execution and maintenance of the works are to be of a kind and conducted in a manner to the satisfaction of the Employer/ Site Engineer.

The contractor shall adhere to the following milestone(s) to ensure timely completion of the work:

#	Description of milestone (Physical)	Time allowed (from date of commencement)
1	Submission of drawings and makes for approval	15 days
2	Supply of BMS material and fire alarm system equipment	60 days
3	Installation DDC, DDC panels and other material.	75 days
4	Testing, commissioning and handing over of system complete.	90 days

Should the rate of progress of the work or any part thereof be at any time be in the opinion of the Employer is slow keeping in view the mile stones mentioned above, to ensure the completion of the whole of the work by the prescribed time or extended time for completion, the Employer shall thereupon take such steps as considered necessary by the Employer to expedite progress of work so as to complete the work by the prescribed time or extended time. Such communications from the Employer neither shall relieve the contractor from fulfilling obligations under the agreement nor he will be entitled to raise any claims arising out of such directions.

38. Extension of Time

Time is the essence of the Contract. The execution of the work shall commence from the 10th day from the date of work order or first day when the contractor is instructed to take possession of the site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, Employer shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the EMD absolutely.

38.1 However, If the work(s) be delayed by:

- i) force majeure, or
- ii) abnormally bad weather, or
- iii) serious loss or damage by fire, or
- iv) civil commotion, location commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
- v) delay on the part of other contractors or tradesmen engaged by Employer in executing work not forming part of the agreement, or
- vi) any other causes which, in the absolute discretion of the Employer is beyond the Contractor's control.

Then upon the happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Employer but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Employer to proceed with the works.

38.2 Request for extension of time, to be eligible for consideration, shall be made by the contractor in writing within seven working days of the happening of the event causing delay. The Contractor may indicate in such a request the period for which extension is desired.

38.3 In any such case, the Employer will give a fair and reasonable extension of time for completion of work. Such extension shall be communicated to the Contractor by the Employer in writing, within 1 month of the date of receipt of

such request. Non-application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Employer.

In case, the work is not completed within stipulated period of time, the contractor shall apply for extension of time atleast 10 calendar days before the expiry of the scheduled time and while applying for extension of time, he shall furnish detailed reasons and his justification, if any, for the delays.

While granting extension of time, the contractor shall be informed about the extended period which will qualify for levy of liquidated damages. For the balance period in excess of original stipulated period and duly sanctioned extension of time by the Employer, the provision of liquidated damages as stated under relevant clause of liquidated damages shall become applicable. Further, contract shall remain in force even for the period beyond the due date of completion irrespective whether the extension is granted or not.

39. Completion Certificate

Soon after the completion of the work, the contractor shall give notice of such completion to the Employer and within 3 working days of the receipt of such notice, the Employer shall inspect the work and if there is no defect in the work, the Employer shall furnish the contractor with a completion certificate, otherwise a provisional completion certificate of physical completion indicating defects (a) to be rectified by the contractor and / or (b) for which payment will be made at reduced rates, shall be issued. But no completion certificate shall be issued, nor shall the work be considered to be completed until the contractor shall have removed from the premises on which the work shall be executed, all scaffolding, surplus materials and rubbish etc. as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution thereof, and not until the work shall have been measured by the Site Engineer. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish etc. as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Employer may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

On successful completion of entire works covered by the contract to the full satisfaction of the Employer, the contractor shall ensure that the following works are also completed to the satisfaction of the Employer.

- a) Remove all rubbish, debris etc. from the site as required by the Employer.

- b) Shall hand over the work in a peaceful manner to the Employer.
- c) All defects/imperfections have been attended and rectified as pointed out by the Employer to the full satisfaction of Employer.

Upon the satisfactory fulfillment by the contractor as stated above, the contractor shall be entitled to apply to the Employer for completion of the work. The Employer shall within seven (7) working days of the receipt of the application for completion certificate, issue a completion certificate in respect of the work for which the completion certificate has been applied. In case, the contractor fails to clear the site (rubbish, debris, packing material, etc.) to the satisfaction of the Employer, the same shall be got done by the Employer and a recovery of Rs. 50,000/- shall be made from the payment to be made to the contractor.

This issuance of a completion certificate shall be without prejudice to the Employer's rights and contractor's liabilities under the agreement including the contractor's liability for defects liability period nor shall the issuance of completion certificate in respect of the works or work at any site be construed as a waiver of any right or claim of the Employer against the contractor in respect of works or work at the site and in respect of which the completion certificate has been issued.

40. When Contract can be determined

Subject to other provisions contained in this clause, the Employer may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and / or any other provisions of this agreement or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- i) If the contractor having been given by the Employer a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or unworkmanlike manner shall omit to comply with the requirement of such notice for a period of seven calendar days thereafter.
- ii) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- iii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Employer (which shall be final and binding), he will be unable to

secure completion of the work by the date for completion and continues to do so after a notice in writing of seven calendar days from the Employer.

- iv) If the contractor fails to complete the work within the stipulated date of completion, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Employer.
- v) If the contractor persistently neglects to carry out his obligations under the agreement and /or commits default in complying with any of the terms and conditions of the agreement and does not remedy it or take effective steps to remedy it within 7 calendar days after a notice in writing is given to him in that behalf by the Employer.

When the contractor has made himself liable for action under any of the cases aforesaid, the Employer shall have power:

- a) To determine or rescind the agreement as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of the Employer shall be conclusive evidence). Upon such determination or rescission, the security deposit already recovered under the agreement shall be liable to be forfeited and shall be absolutely at the disposal of the Employer.
- b) To pay to the labour employed by the Employer and to supply materials to carry out the work or any part of the work debiting the contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certified by the Site Engineer on behalf of the Employer shall be final and conclusive) against the contractor and crediting him with the value of the work done in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his agreement.

The certificate of the Employer as to the value of the work done shall be final and conclusive against the contractor provided always that action under the sub-clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the Employer are less than the amount payable to the contractor at his agreement rates, the difference shall not be paid to the contractor.

- c) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof as shall be un-executed out of his hands and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of the

amount of which excess the certificate in writing of the Site Engineer on behalf of the Employer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by Employer under his agreement or on any other account whatsoever or from his security deposit as the case may be. If the expenses incurred by the Employer are less than the amount payable to the contractor at his agreement rates, the difference shall not be paid to the contractor.

In the event of anyone or more of the above courses being adopted by the Employer, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this agreement unless and until the Site Engineer on behalf of the Employer has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

41. Cancellation of contract in full or part

If contractor:

- i) at any time makes default in proceeding with the works or any part of the work with the due diligence and continues to do so after a notice in writing of 7 calendar days from the Employer; or
- ii) commits default to complying with any of the terms and conditions of the agreement and does not remedy it or take effective steps to remedy it within 7 calendar days after a notice in writing is given to him in that behalf by the Employer; or
- iii) fails to complete the work, on or before the stipulated date of completion, and does not complete them within the period specified in a notice given in writing in that behalf by the Employer ; or
- iv) shall obtain a contract with Employer as a result of wrong tendering or other non-bonafide methods of competitive tendering; or
- v) being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being

in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or

- vi) being a company, shall pass a resolution or the Court shall make an order for the winding up of the company, or a receiver or manager on behalf of the debenture holders or otherwise shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or
- vii) shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 calendar days; or
- viii) assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Employer;

The Employer may, without prejudice to any other right or remedy which shall have accrued or shall accrue hereafter to Employer, by a notice in writing to cancel the agreement as a whole or only such items of work in default from the Contract.

The Site Engineer shall on such cancellation by the Employer have powers to:

- a) take possession of the site and any materials, constructional plant, implements, stores, etc. thereon; and / or
- b) carry out the incomplete work by any means at the risk and cost of the contractor.

On cancellation of the agreement in full or in part, the Employer shall determine what amount, if any, is recoverable from the contractor for completion of the works or part of the works or in case the works or part of the works is not to be completed, the loss or damage suffered by Employer. In determining the amount, credit shall be given to the contractor for the value of the work executed by him up to the time of cancellation, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor.

Any excess expenditure incurred or to be incurred by Employer in completing the works or part of the works or the excess loss or damages suffered or may be suffered by Employer as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to Employer in law be recovered from any moneys due to the contractor on any account, and if such moneys are not sufficient the contractor

shall be called upon in writing and shall be liable to pay the same within 30 calendar days.

If the contractor shall fail to pay the required sum within the aforesaid period of 30 calendar days, the Employer shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary buildings, etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the contractor under the agreement and if thereafter there be any balance outstanding from the contractor, it shall be recovered in accordance with the provisions of the agreement.

Any sums in excess of the amounts due to Employer and unsold materials, constructional plant, etc., shall be returned to the contractor, provided always that if cost or anticipated cost of completion by Employer of the works or part of the works is less than the amount which the contractor would have been paid had he completed the works or part of the works, such benefit shall not accrue to the contractor.

42. Settlement of Disputes and Arbitration

Except where otherwise provided in the agreement, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions herein 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 the or relating to the agreement, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completing or abandonment thereof shall be dealt with as mentioned hereinafter:

42.1 If the contractor considers any work demanded of his to be outside the requirements of the agreement, or disputes any drawings, record or decision given in writing by the Site Engineer any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable, he shall promptly within 7 calendar days request the Engineer-in-Charge in writing for written instruction or decision. Thereupon, the Engineer-in-Charge shall give his written instruction or decision within a period of 15 days from the receipt of the contractor's letter.

If the Engineer-in-Charge fails to give his instructions or decision in writing within the aforesaid period or if the contractor is dissatisfied with the instructions or decision of the Engineer-in-Charge, the contractor may within 30 calendar days of the receipt of Engineer-in-Charge decision, give notice to the Employer for appointment of a sole arbitrator failing which the said decision shall be final binding and conclusive and not referable to adjudication by the arbitrator.

42.2 The arbitration shall be conducted in accordance with the provisions of the Arbitration and conciliation Act, 1996(26 of 1996) or any statutory modifications or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.

42.3 The award of the arbitrator shall be final and binding on both parties.

43. Force Majeure

43.1 Neither contractor nor NISM shall be considered in default in performance of their obligations if such performance is prevented or delayed by events such as war, hostilities, revolution, riots, civil commotion, strikes, lockout, conflagrations, epidemics, accidents, fire, storms, floods, droughts, earthquakes or ordinances or any act of God or for any other cause beyond the reasonable control of the party affected or prevented or delayed. However a notice is required to be given within 30 calendar days from the happening of the event with complete details, to the other party to the agreement, if it is not possible to serve a notice, within the shortest possible period without delay.

43.2 As soon as the cause of force majeure has been removed, the party whose ability to perform its obligations has been affected, shall notify the other of such cessation and the actual delay incurred in such affected activity adducing necessary evidence in support thereof.

43.3 From the date of occurrence of a case of force majeure, obligations of the party affected shall be suspended during the continuance of any inability so caused. With the cause itself and inability resulting therefrom having been removed, the agreed time of completion of the respective obligations under this agreement shall stand extended by a period equal to the period of delay occasioned by such events.

43.4 Should one or both parties be prevented from fulfilling the contractual obligations by a state of force majeure lasting to a period of 6 months or more, the two parties shall mutually decide regarding the future execution of this contract.

44. Accidents

The contractor shall immediately on occurrence of any accident at or about the site or in connection with the execution of the work report such accident to the Employer / Site Engineer. The contractor shall also report such accident immediately to the Competent Authority whenever such report is required to be lodged by the law and take appropriate actions thereof.

45. Protective safety measures

Necessary protective and safety equipment shall be provided to the Site Engineer, workers & supervisory staff by the Contractor at his own cost and used at site.

- 45.1 First aid appliances including adequate supply of sterilized dressing and cotton wool shall be kept in a readily accessible place.
- 45.2 An injured person shall be taken to a public hospital without loss of time, in case where the injury necessitates hospitalization.
- 45.3 Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from the ground.

46. Running In Period and Date of Acceptance

After installation work has been completed by the contractor, he will conduct test and make adjustment as may be necessary to satisfy himself that the BMS system including other BOQ items are capable of continuous running.

The BMS system will be said to have successfully completed the running in period, if no breakdown or abnormal/unsatisfactory operation of any machinery occurs during 7 days' time, after the system is put to use. This date of taking over of the system after trouble free operation during the running in period shall be the date of handing over and completion.

47. Comprehensive maintenance during Defects Liability Period

- a) The contractor shall provide comprehensive maintenance during the defects liability period of 12 months period from the date of completion.
- b) Trained and experienced staff shall visit site for routine and preventive maintenance at least once in two months during defects liability period of 12 months from the date of completion. Nothing extra shall be paid for same. Recovery of Rs. 20,000/- shall be made towards each of the visit missed by the representative of the agency.
- a) In case of breakdown, the Contractor shall attend the complaint within 48 hrs. of lodging of complaint failing which recovery at rate of Rs 5,000/- per day shall be made.
- b) The record of routine/preventive/breakdown maintenance shall be maintained. Nothing extra shall be paid on this account.
- c) Security deposit equivalent to EMD shall remain withheld for defects liability period of one Year and shall be released after adjusting recoveries, if any, and after successful completion of defects liability period.

48. Operation of the installation during defects liability period

- a) For the work relating to operation of BMS ,the tenderer shall quote his rates in 'Sub Head-V (Operation of Building Management System).
- b) The contractor shall deploy suitably qualified, trained and experienced staff on duty to operate the installations as per requirement. The contractor shall submit list of staff to be engaged by him along with their qualification & experience before commencement of operation of BMS. The list shall be got approved from Engineer-in-charge or his authorized representative.The contractor shall be fully responsible for the integrity and character of the staff engaged. Any staff not considered suitable for the job shall have to be changed immediately by the contractor.

SPECIAL CONDITIONS OF CONTRACT

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TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

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NISM

1. Site address

The work will be carried out at the Campus of NISM situated at Patalganga, Distt. Raigad, Maharashtra about 75 km away from Mumbai airport. The tenderer should in his own interest visit the site and familiarize himself with the site conditions before tendering.

2. Tender documents

The information and data mentioned in the tender document have been furnished, in good faith, for general information and guidance only. The Employer shall not bear any responsibility for the lack of knowledge and also the consequences, thereof to the Contractor. The Employer, in no case, shall be held responsible for the accuracy thereof and / or interpretations or conclusions drawn there from by the Contractor and all consequences shall be borne by the Contractor. No claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in tender document is at variance to the tender document. It is presumed that the Contractor shall satisfy himself for all possible contingencies, incidental charges, wastages, bottlenecks etc. likely during execution of work and acts of coordination, which may be required between different agencies. Nothing extra shall be payable on this account.

3. Contractor to verify site measurement

The contractor shall check and verify all site measurements whenever requested by other specialists contractors or other sub-contractors to enable them to prepare their own shop drawings and pass on the information with sufficient promptness as will not in any way delay the works.

4. Water Supply

The contractor shall be allowed to use water from the existing source at site, free of cost.

5. Power

Power will be provided at one source at site of work, free of cost. The contractor has to arrange for distribution of power from aforesaid source and the work related thereto shall be made performed / installed in conformity with Indian Electricity Regulations and shall be subject to prior approval of the Employer.

Power supplied by the Employer to the contractor shall be entirely at the risk of contractor as the continuity and regularity of supply, maintenance of voltage and adequacy of load without any warranty by or liability to the Employer in respect thereof and without entitlement to the contractor on grounds of discontinuance, fluctuation of voltages or inadequacy of load or any other cause whatsoever to claim from Employer in respect thereof or consequences thereof.

The contractor shall make contingency arrangement of stand-by electric supply for smooth progress of the work so that work does not suffer on account of power failure. No claim of any kind whatsoever shall be entertained on this account from the Contractor. Nothing extra shall be payable on this account.

The contractor shall at all times provide adequate and approved lighting as required for the proper execution, supervision and inspection of work.

6. Office Accommodation

No exclusive office accommodation will be provided at site of work.

7. Labour accommodation

No labour accommodation is available at the site of work. The labour shall not be allowed to stay in the premises and the Contractor shall make his own arrangements for labour accommodation. The Employer shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained. Nothing extra shall be payable on this account.

8. Site Order Book

A site order book shall be maintained at site for the purpose of quick communication between the Employer / Site Engineer and the contractor. Any communication relating to the works may be conveyed by recording in the site order book. Such a communication from one party to the other shall be deemed to have been adequately served in terms of contract. The site order book shall be carefully maintained and preserved by the contractor and made available to the Employer / Site Engineer as and when demanded. Any instruction which the Employer / Site Engineer may like to issue to the contractor or the contractor may like to bring to the Employer / Site Engineer.

9. Site Meetings

Weekly site meetings will be held to review the progress and quality evaluation. The contractor shall depute a senior representative alongwith the site representative to attend site meetings and ensure all follow up actions. Any additional review meetings shall be held, if required by the Employer.

10. Patent, Royalty, Trade Mark etc.

Royalty at the prevalent rates shall be paid by the Contractor. The Contractor shall assume all liability, financial or otherwise in connection with this agreement and shall protect and indemnify the Employer from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Employer against all claims in respect of patent rights, royalties, design, trademarks of name or other protected

rights, damages to adjacent floors of the building, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the Employer in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

11. Incidental cost

The nomenclature of the item given in the price bid gives in general the work content but is not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and / or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works, which are not mentioned in the nomenclature of each item but will be necessary to complete the item in all respect. All these incidental works / costs which are not mentioned in item nomenclature but are necessary to complete the item shall be deemed to have been included in the rates quoted by the contractor for various items in the price bid. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation / change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Employer / Site Engineer.

The scope of work also includes minor building works necessary for installation of equipment, foundation, making of opening in walls or in floor and restoring to their original conditions, finish and necessary grouting etc. as required. Nothing extra shall be payable on these account.

12. Rates applicable for and upto to all heights

Unless otherwise provided in the price bid, the rates quoted by the Contractor shall be inclusive of carrying out the works at and / or upto all heights, lifts and leads. The contractor shall make all arrangements for the same.

13. Government and Local Rules

The contractor shall conform to the provisions of all local Bye-laws and Acts relating to the work and to the Regulations etc. of the Government and Local Authorities. The contractor shall give all notices required by said Act, Rules, Regulations and Bye-laws etc. and pay all fees payable to such authority/authorities for execution of the work involved. The cost, if any, shall be deemed to have been included in his quoted rates, taking into account all liabilities for licenses, fees etc. and shall indemnify and protect the Employer and its Employees against such liabilities and / or claim arising

out of violation of any such laws, ordinances, orders, decrees and shall defend all actions arising from such claims or liabilities.

14. Work to be kept in good condition

The Contractor shall maintain all the work in good condition till the completion of entire work. The Contractor shall be responsible for and shall make good, all damages and repairs, rendered necessary due to fire, rain, traffic or any other causes. The Employer shall not be responsible for any claims for injuries to person/workmen or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the Contractor or of any other of his representatives, in his employment during the execution of the work. The compensation, if any, shall be paid directly to the Department / authority / persons concerned, by the Contractor at his own cost.

15. Idle Labour

Whatever the reasons may be, no claim for idle labour, additional establishment cost of hire and labour charges of tools and plants would be entertained under any circumstances.

16. Storage of Materials

The contractor shall provide and maintain proper sheds for the proper storage and adequate protection of materials etc. and other work that may be executed on the site including the tools and materials of nominated sub-contractors and remove same on completion. Watch and ward of the stores and their safe custody shall be the responsibility of the contractor till the final taking over of the installation by the Employer.

17. Use of Lifts

The contractor shall not be allowed to make use of lifts for carrying the material to respective floors. The contractor is required to use staircases for carrying the materials. Adequate care shall be taken by the contractor to ensure that no damage is made to already executed works such as flooring, handrail, painting, etc. during shifting of the material. Penal recovery @ double the amount required for restoring the work to the original condition shall be made from the payments of the contractor.

18. Declaration

I/We have inspected the site of works and have made fully acquainted with the local conditions in and around the sites of works. I/We hereby declare that I/We have gone through the conditions laid down in the Notice Inviting Tender, General Conditions of Contract, Special Conditions of Contract, Technical Specifications etc.

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

and understood the same and on the basis of the same, I/We quote our rates in the price bid attached with the tender documents.

I/We shall also uniformly maintain such progress with the work, as may be directed by the Employer to ensure completion of same within the target date as mentioned in the tender document.

NISM

FORMAT FOR EARNEST MONEY DEPOSIT (EMD)

WHEREAS _____ (hereinafter called “the tenderer”) has submitted his tender dated _____, for Building Management System works for the campus of National Institute of Securities Markets situated at Plot No. IS- 1 & IS-2 (Opp. HDFC Bank, Rasayani Branch), Patalganga Industrial Area, Village Mohopada (Wasambe), Taluka – Khalapur, District Raigad, Pin code – 410 222 (hereinafter called “the tender”);

KNOW ALL PEOPLE by these presents, that We _____ having our registered office at _____ (hereinafter called “ the Bank”) are bound unto National Institute of Securities Markets (hereinafter called “the Employer”) in the sum of Rs. _____ (Rupees _____) for which payment well and truly to be made to the said Employer, the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this ____ day of _____.

THE CONDITIONS of this obligation are:

1) If after tender opening the tenderer withdraws his tender during the period of tender validity period specified in the tender documents ;

Or

2) If the tenderer having been notified of the acceptance of his tender by the Employer during the period of tender validity period,

- a) On account of any erosion, refusal and / or delay on the part of tenderer to sign and / or execute the Agreement in accordance with the Instructions to tenderer , if required; or
- b) Fails or refuses to furnish the Performance Security, in accordance with the Instruction to tenderer.
- c) Fails to commence the work awarded to him within the prescribed time limit.

We undertake to pay to the Employer either up to the above amount or part thereof upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand, the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or more conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date, 2 Months after the deadline for submission of tenders as such deadline is stated in the Instructions to Tenderer or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

Notwithstanding anything contained herein:

- 1) Our liability under this Bank Guarantee shall not exceed Rs. 3,40,000/- (Rupees Three Lakh Forty Thousand Only)
- 2) This Bank Guarantee shall be valid up to March 03, 2018
- 3) We are liable to pay the Guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before March 03, 2018. All the rights of the beneficiary under the said Guarantee shall be forfeited and Guarantee shall be released and discharged from all liabilities thereafter.

DATE :

WITNESS :

SIGNATURE OF THE BANK :

BANKER'S SEAL :

FORMAT FOR PERFORMANCE GUARANTEE

To,

National Institute of Securities Markets (NISM),
NISM Bhavan, 5th Floor, Plot No. 82,
Sector 17, Vashi,
Navi Mumbai 400 703

WHEREAS _____ (hereinafter called "the Contractor") has undertaken, in pursuance of Letter of Acceptance _____ (Ref. No.) dated _____ to execute Building Management System works for the campus of National Institute of Securities Markets situated at Plot No. IS- 1 & IS-2 (Opp. HDFC Bank, Rasayani Branch), Patalganga Industrial Area, Village Mohopada (Wasambe), Taluka – Khalapur, District Raigad, Pin code – 410 222 ("hereinafter called "the Contract");

AND WHEREAS, it has been stipulated by National Institute of Securities Markets ("hereinafter called "the Employer") in the said Contract that the Contractor shall furnish the Employer with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS, _____ (Name of the Bank) have agreed to give the Contractor such a Bank Guarantee;

NOW THEREOF we hereby affirm that we are the Guarantor and responsible to the Employer, on behalf of the Contractor, up to total of Rs. _____ (Rupees _____) such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay to the Employer, upon their first written demand and without cavil or argument, any sum or sums within the limits of Rs. _____ (Rupees _____) as aforesaid without Employer's needing to prove or to show grounds or reasons for their demand for the sum specified therein.

_____ (Name of the Bank) hereby waive the necessity of Employer's demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract shall in any way release us from any liability under this guarantee, we hereby waive notice of any such, addition or modification.

This guarantee shall be valid up to _____ Months unless extended on demand.

Notwithstanding anything contained herein:-

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

- 1) Our liability under this Bank Guarantee shall not exceed Rs. _____ (Rupees _____).
- 2) This Bank Guarantee shall be valid up to _____
- 3) We are liable to pay the Guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before _____. All the rights of the beneficiary under the said Guarantee shall be forfeited and Guarantee shall be released and discharged from all liabilities thereafter.

IN WITNESS WHEREOF, the Bank has executed this document on this ____ day of _____ for _____ (Name of the Bank) .

Name :

Designation :

Banker's Seal :

Address :

Dated at ____ Day of _____

ANNEXURE

DRAFT OF THE AGREEMENT TO BE SIGNED BETWEEN NISM AND CONTRACTOR

ARTICLES OF AGREEMENT made the.....day ofBETWEEN National Institute of Securities Markets (NISM) having its office at NISM Bhavan, Plot No. 82, Sector 17, Vashi, Navi Mumbai 400 703 (hereinafter called "the Employer") which expression shall unless repugnant to the context mean & include its successors & assigns of the ONE PART and M/s.----- having its office at -----(hereinafter called "the Contractor" which expression shall unless repugnant to the context mean & include) of the OTHER PART.

WHEREAS the Employer has awarded (name of the work) to the contractor as per Schedule I of this Agreement and has caused price bid and specifications etc., describing the scope of the work to be done.

AND WHEREAS the Contractor has agreed to execute upon and subject to the conditions set forth in Schedule II hereto attached (hereinafter referred to as "the Said Conditions") the work described in the said specifications and included in the said price bid for the sum of Rs.--- (Rupees -----). NOW IT IS HEREBY AGREED AS FOLLOWS: In consideration of the sum of Rs. -- (Rupees -----only) to be paid at the times and in the manner set forth in the said conditions, the Contractor will upon and subject to the said conditions execute and complete the works described in the said specifications and price bid.

The Employer will pay to the Contractor the said sum of Rs.----- (Rupees -----only) or such other sum as shall become payable hereunder at the times and in the manner specified in the said conditions.

The said conditions, specifications and priced price bid shall be read and construed as forming part of this agreement, and the parties hereto will respectively abide by and submit themselves to the conditions and stipulations and perform the Agreement on their parts respectively in such conditions, specifications and priced price bid contained.

This contract is neither a Fixed Lump Sum Contract nor a Piece Work Contract, but is a contract to carry out work in respect of the entire work to be paid for according to actual measured quantities at the rates contained in the price bid and probable quantities or as provided in the said conditions.

The Employer reserves to himself the right of adding or omitting any items of work or having portions of the same carried out without prejudice to this contract.

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

The contractor represents that he has experienced and competent staff which will enable him to ensure proper quality check on materials, whether brought by the contractors or supplied by the Employer to the contractors. Further, the contractor will carry out proper test as required by the specifications and will supervise the day-to-day working and execution of the contract works.

If the Contractor has any doubt about the quality of any materials or any difficulty in supervision of the day-to-day work, it shall be the duty of the contractor to report the matter in writing forthwith to the Employer and, for the time being, to suspend that portion of the work about which difficulty is experienced. The Contractor will abide by the direction of the Employer / Site Engineer.

The Contractor covenants and warrants that completed items of work as well as the entire work on completion will be in conformity with the specifications and the terms and conditions of this contract and will be of quality and description as contained in contract.

Time shall be considered as the essence of this Agreement and the Contractor hereby agrees to take up the work as per date of commencement and complete the entire work within (duration of the work) from the date of commencement as per the said conditions, subject, nevertheless, to the provisions of extension of time as contained in the said conditions.

This agreement shall be deemed to have been made in Mumbai and any questions or dispute arising out or in any way connected with this Agreement and Contract shall be deemed to have arisen, in Mumbai and only the court in Mumbai shall have jurisdiction to determine the same.

SCHEDULE – I

Tender for Building Management System

Tender for (Name of the work).

SCHEDULE – II

1. Work Order issued by the Employer
2. Letter(s) from Contractor
3. Commercial cum Technical Bid
4. Price Bid

As witness our hand the day and year first above written.

Signed by the Said Employer:
(Name & Designation)

In the Presence of Witnesses:

Name:

Occupation:.....

Address:.....

Signed by the Said Contractor (s):
(Name & Designation)

In the Presence of Witnesses:

Name:

Occupation:.....

Address:.....

TECHNICAL SPECIFICATIONS AND BRIEF ON BUILDING MANAGEMENT SYSTEM

- 1) The work to be carried out under this contract comprises of Building Management System and other allied works as mentioned in the Price bid document.
- 2) The work shall be executed as per CPWD General Specifications for Electrical Works (Part I – Internal) 2013, (Part II – External) 1994, (Part-IV Sub-Station)2013, relevant IS and BIS standards and as per directions of Engineer-in-charge.
- 3) All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification. In particular, the equipment and installation will comply with the following:
 - a) Factories Act
 - b) Indian Electricity Rules.
 - c) I.S. & B.S. Standards as applicable.
 - d) Workmen’s Compensation Act.
 - e) Statutory norms prescribed by local bodies.
- 4) Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.
- 5) In general, the work to be performed under this contract shall comprise of:
 - a) Preparing of Shop Drawing before Commencement of work
 - b) Preparation of cable schedule
 - c) Submission of I/O summary based on the details provided in the tender
 - d) Programme for execution of work within contractual period
 - e) Execution of work with required labour, material and tools and plants, etc. as per the approved specification and shop drawings.
 - f) Preparation and submission of as built drawings
 - g) Training to NISM team regarding operation of the system.
 - h) Preparation and submission of as built drawings after completion of work
- 6) After completion of work and before issuance of certificate of completion, the contractor shall submit to Engineer-in-charge “as built drawings”. Two sets of drawings are to be provided for approval and after approval of all drawings, three sets of all the as built drawings in hard copy as well as in form of CD to be submitted.

- 7) The contractor shall ensure that, the instrumentation and control equipment used for testing of all equipment shall be calibrated, and remains valid at the time of testing.

Any special equipment, tools and tackles required for the successful completion of the Commissioning Tests shall be provided by the Contractor, and cost of the same shall be included in the quoted offer.

NISM

Brief on Building Management System

The system shall fully be consistent with the latest industry standards, operating on latest operating system of Windows, allowing the user to make full use of the features provided with these operating systems. To provide maximum flexibility and to respond to changes in the building use, the system offered shall support the use of BACnet, LAN, and Ethernet TCP/IP communication technologies.

The Building Management System shall combine the latest state of the art technology with simple operating techniques and shall be used to control, manage alarms/reports and monitor the building services installations.

A. ESSENTIAL FUNCTIONS OF SYSTEM.

The system comprises the supply, engineering, testing and commissioning of an integrated building management system by a specialist manufacturer.

The essential functions of the system are as follows:

- Centralized operation of the plant (remote control)
- Dynamic and Animated Graphic details (2D/3D) of Plant and building
- Early recognition of faults
- Faults statistics for identification
- Trend register to identify discrepancies, energy consumption, etc.
- Preventive maintenance and plant servicing
- Optimum support of personnel
- Control optimization of all connected electrical and mechanical plant
- Prevention of unauthorized or unwanted access
- Own error diagnosis integrated system
- Auto-CAD integration

B. SYSTEM TOPOLOGY

The BMS shall be hierarchical in structure. Each level within the hierarchy shall be capable of functioning autonomously and shall be operated independently. The system shall be divided into the following 3 levels:

- I. THE MANAGEMENT LEVEL - The head-end management and operation of the plant shall include process visualization, data analysis, and exchange of data with 3rd parties. At the management level, it shall be possible for communication to flow in all directions, across networks and via direct connections. The management level of the system shall be capable of handling more management station PCs and the associated software modules. The number of total number of management station PCs shall be as described elsewhere in the specifications/BOQ.

- II. THE COMMUNICATION LEVEL - The Network controller(s) shall be provided for manipulation of data from the field outstations (DDC level) for onward communication to the PC. It shall also perform the management functions and event-related communication. In the event the PC being non-functional / switched off , the BMS should be able to log events, give alarm prints via the system controller. Hence system controller as a card in the PC is not acceptable.
- III. THE PROCESS LEVEL - The Direct Digital Control and Interlock System for the control loops shall comprise microprocessor-based controllers along with the necessary input and output terminals. All the field devices shall be connected to the respective input and output terminals.

The DDC units must be programmable and stand-alone and ensure a fully automatic operation of the electrical and mechanical plant. The units must be fitted with a processor of high processing speed, a suitably sized memory and a modular graphic programming language. Each master DDC controller should have an **inbuilt real time clock**. Software clock at the Management level or clock at the network controller level is not acceptable.

The programming language must be self-explanatory and self-documenting.

- C. **MANAGEMENT SYSTEM** - The Management Station shall be a man/machine interface to the processing level via the Network Controller. The building and mechanical plant shall be displayed on the PC in numerical form and graphically in a way which shall be both easy to understand and to use.
The specification of Management Station and printers shall be as specified in BOQ.
- D. **BMS software** - The software shall be as per the series of the various makes specified in BOQ.

Equipment to be controlled by BMS system

Equipment Schedule for BMS System								
Sr No.	Location	Floor	No. of AHU rooms	No. of AHUs/TFA unit/Fresh air fan	DDC Panel	Master IP based Controller having inbuilt memory	Slave Controller	Remarks
1	Academic A	GF	0	0	0	0	0	2 no. fresh air fan will be controlled though 2F AHU DDC
		1F	3	5	1	1	4	
		2F	3	5	1	1	4	
2	Academic B	GF	0	0	0	0	0	2 no. fresh air fan will be controlled though 2F AHU DDC
		1F	3	5	1	1	4	
		2F	3	5	1	1	4	
3	Academic C	GF	0	0	0	0	0	2 no. fresh air fan will be controlled though 2F AHU DDC
		1F	2	5	1	1	4	
		2F	2	5	1	1	4	
4		LGF	1	1	1	1	0	1 no. fresh air fan will be control though 2F AHU DDC
		GF	0	0	0	0	0	
		1F	2	5	1	1	4	
		2F	2	4	1	1	4	
	Academic D	Data Centre at LGF	0	0	0	0	0	PAC - 2 Nos., UPS - 2 Nos. , PDU - 2 Nos. (this can be monitored through LGF DDC)
5	Orientation	GF	1	1	1	1	1	1 no. AHU with duel VFD panel
		1F	1	1	1	1	1	1 no. AHU with duel VFD panel
		2F	1	1	1	1	1	1 no. AHU with duel VFD panel
6		GF	2	3	2	2	1	2 nos. AHU with duel VFD panel
	Dining	Kitchen	0	2	1	1	0	1 No. fresh air fan and 1 No. Exhaust
7	Recreation	GF	1	2	1	1	1	Ceiling suspended
		1F	1	3	1	1	2	
8	Auditorium	GF	0	5	2	2	3	2 nos AHUs control panel installed on 1st floor
		1F	1	7	2	2	5	1no AHU with duel VFD, 5 nos. AHU with single VFD, 1 no. TFA.

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		Kitchen	0	2	2	2	0	1 No. TFA and exhaust at GF, 1 No. fresh air fan and 1 No. big exhaust fan on terrace
9	library	GF	2	2	2	2	0	1 no. AHU with dual VFD panel
		1F	2	2	2	2	0	2 no. AHU with dual VFD panel
		Data Centre at GF	0	0	0	0	0	PAC - 6 Nos., UPS - 2 Nos. , PDU - 2 Nos. (soft integration and hard points, if any will be controlled and monitored through one of the GF AHU DDC panel)
10	HVAC Plant Room	GF						3 Nos. Chillers, 4 nos. Primary & 4 nos. Secondary Pumps, Cooling Tower - 4 Nos. with dual fans, Condenser pumps - 4 nos., Make up Water Tank 1 no., Secondary pumps and chillers having VFD control. (DDC panels and DDCs quantity to be decided by the vendor based on quantities mentioned in Remark Section)
11	Utility Room	GF			1	1	0	3 Nos. DG Sets, Energy Meters - 20 Nos., 2 Nos. Transformer, 2 Nos. solar panel, 1 No. HT Panel, 2 Nos. capacitor panel.
12	Pump Room				1	1		Fire pump, domestic pump automation, isolated operation
13	STP Plant				1	1		STP pump automation, isolated operation
14	Hostels				4	4		water level sensor automation with motorized valve, and each DDC will also control 2 nos. fresh air fans installed at terrace of each hostel block
15	Residence				1	1		water level sensor automation with motorized valve
		Total Quantity			35	35	47	
<p>Note- The above schedule is for the information of bidder. The above quantity of DDC panels and DDCs is minimum quantity to be considered except HVAC plant room. However the bidder has to make an independent assessment of the same and quote his prices accordingly. Nothing extra shall be paid on this account.</p>								

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

E. DATA POINT SUMMARY

DATA POINT SUMMARY FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA																			
Project : NISM, PATALGANGA								0											
Item	Qty	Description	Hardware Points				Soft Integration	Field Devices and Wiring to Interface Terminal Board		By BMS Contractor	By 3rd party contractor	Immersion Temp Sensor	Duct Temp Sensor	Outside Temp+Rh Sensor	Air DP Sensor	Air DP Switch	Liquid DP Sensor	Liquid DP Switch	Level Sensor
			AI	AO	DI	DO													
HVAC SYSTEM		Chiller Plant Room																	
	3	Water cooled Chiller (315 TR)					Bacnet Interface License		HVAC Vendor to provide RS 485 Bacnet interface in each chiller. HVAC Vendor to show the parameters on the MODSCAN /Bacstack/Cimetrics software before integrating to IBMS. All mapping details & the Master/slave ID setting in the Chillers to be done by										

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									the HVAC Contractor								
1		Chilled Water Supply Header Temp	1					Immersion Temp Sensor	Suitable Provision in Water Line	Insertion	1						
2		Chilled Water Return Header Temp	1					Immersion Temp Sensor	Suitable Provision in Water Line	Insertion	1						
3		Chiller CHW Supply & Return Temp	6					Immersion Temp Sensor	Suitable Provision in Water Line	Insertion	6						
4		Chilled Water Supply Temp Set point Reset															
5		Chiller Start / Stop Command				3		Potential Free Contact from BMS to Chiller MCC panel	Acceptance of Potential Free Output in Chiller Panel								
6		CHW Flow Through Chiller Status(ON /OFF status)				3		Potential Free Contact to BMS from DP switch	Suitable Provision in Water Line	Insertion							3
7		Chiller Enable				3		Potential Free Contact from BMS to Chiller MCC panel	Acceptance of Potential Free Output in Chiller Panel								
8		Chiller Auto / Manual Status				3		Potential Free Contact to BMS from Chiller MCC panel	Potential Free Contact in Chiller Panel								

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9		Chilled Supply Water Isolation Valve Open / Close Status			3		Potential Free Contact from BMS to motorised butterfly valve with limit switch for position status.	Motorised Butterfly valves									
10		Chilled Supply Water Isolation Valve Open / Close CMD				3	CMD from BMS to Motorised valve	Motorised Butterfly valves									
11		Emergency Shut down				3	Potential Free Contact to BMS from Chiller MCC panel	Potential Free Contact in Chiller Panel									
		General Fault Alarm				3	Potential Free Contact to BMS from Chiller MCC panel	Potential Free Contact in Chiller Panel									
12		Soft Integration with Chiller on MODBUS / Bacnet / Lonworks Open Protocol					90										
	4	Primary Pumps for Water cooled Chiller															
1		Pump status(ON/OFF)				4	Potential Free Contact to BMS from DP switch	Suitable Insertion Provision in Water Line									4
2		Pump Start/Stop Command				4	Potential Free Contact from BMS to Pump Starter panel	Acceptance of Potential Free Output in Pump Panel									
3		Pump trip status				4	Signal from Pump panel to BMS	Potential Free Contact in Pump Panel									

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

4		Pump Auto / Manual switch status			4			Signal from Pump panel to BMS	Potential Free Contact in Pump Panel									
5		Common Return Temperature from System	1					Signal from temp sensor	Suitable Insertion Provision in Water Line	1								
6		Supply Temperature To CHW	4					Signal from temp sensor	Suitable Insertion Provision in Water Line	4								
7		Outside Air Temp / RH Sensor	2					Signal from temp sensor			1							
	4	Secondary Pumps																
1		Pump Start/Stop Command				4		Potential Free Contact from BMS to VFD panel	Acceptance of Potential Free Output in VFD Panel									
2		Pump trip status				4		Signal from Pump panel to BMS	Potential Free Contact in Pump Panel									
3		Pump status(ON/OFF)				4		Potential Free Contact to BMS from DP switch	Suitable Insertion Provision in Water Line									4
4		Pump Auto / Manual switch status				4		Signal from Pump panel to BMS	Potential Free Contact in Pump Panel									
5		VFD speed control				4		0-10 Vdc to VFD	acceptance of 0-10 Vdc in VFD									
6		VFD speed feedback	4					acceptance of 0-10 Vdc from VFD	Provision of 0-10 Vdc in VFD for Speed feed back									
7		VFD error code				4		Signal from Pump panel to BMS	Potential Free Contact in VFD									
8		Secondary Chilled Water	4					Signal from temp sensor	Suitable Insertion Provision in Water Line	4								

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

		Supply Temperature for each loop																
9		Secondary Chilled Water return Temperature for each loop	4					Signal from temp sensor	Suitable Provision in Water Line	Insertion	4							
10		Diff.Pressure Sensor across supply & Return headers	2					Potential Free Contact to BMS from DP sensor	Suitable Provision in Water Line	Insertion						2		
11		Soft integration of VFD					40											
	1	Makeup water Tank For Chiller																
1		Water High Level	1					Signal from level switch	Suitable Provision in Cooling Tower	Insertion								
2		Water Medium Level						Signal from level switch	Suitable Provision in Cooling Tower	Insertion								
3		Water Low Level						Signal from level switch	Suitable Provision in Cooling Tower	Insertion								
	8	ON/OFF Motorised Butterfly Valves for Chiller																
1		Valves status(ON/OFF)				8		Signal from DP switch	Suitable Provision in Cooling Tower line	Insertion							8	

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

2		Valves Start/Stop Command				8	Potential Free Contact from BMS to motorised butter fly valve with limit switch for position status. Also providing power to valve actuator	Motorised Butterfly valves										
	4	Cooling tower																
1		Condenser Water Return Temp	1				Signal from temp sensor	Suitable Provision in Water Line	Insertion	1								
2		Condenser Water Supply Temp	1				Signal from temp sensor	Suitable Provision in Water Line	Insertion	1								
3		Condenser Water Isolation Valve Supply/return Status				8	Signal from motorised valve to BMS	PFC from motorised valve to BMS										
4		Fan Status				8	Signal from VFD to BMS	PFC in VFD										
5		Condenser Water Isolation Valve Supply/return CMD				8	Potential Free Contact from BMS to motorised butter fly valve with limit switch for position status. Also providing power to valve actuator	Motorised Butterfly valves										
6		Fan Start/Stop CMD				8	Potential Free Contact from BMS to CT Starter panel	Acceptance of Potential Free Output in CT Panel										
7		VFD speed control				8	0-10 Vdc to VFD	acceptance of 0-10 Vdc in VFD										
8		VFD speed feedback					acceptance of 0-10 Vdc from VFD	Provision of 0-10 Vdc in VFD for Speedfeed back										

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

9		VFD error code					Signal from Pump panel to BMS	Potential Free Contact in VFD										
10		Outlet & Inlet condenser water temperature (Header)	2				Immersion sensor temperature	Suitable Provision in Water Line Insertion	2									
11		Basin temperature sensing	2				Immersion sensor temperature	Suitable Provision in Water Line Insertion	2									
12		soft integration				40												
	4	Condenser Pumps																
1		Pumps ON / OFF command				4	Potential Free Contact from BMS to Pump Starter panel	Acceptance of Potential Free Output in Pump Panel										
2		Pumps ON / OFF Status			4		Potential Free Contact to BMS from DP switch	Suitable Provision in Water Line Insertion								4		
3		Pumps Auto / Manual status			4		Signal from Pump panel to BMS	Potential Free Contact in Pump Panel										
4		Pumps trip status			4		Signal from Pump panel to BMS	Potential Free Contact in Pump Panel										
	4	Cooling tower Basin																
1		Level Switch - High	4				Signal from level sensor to BMS										4	
2	Level Switch - Low																	
3	Level Switch - Medium																	

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

4		ON/Off Type Valve for Tank with feed back			4	4		Potential Free Contact from BMS to motorised butter fly valve with limit switch for position status.Also providing power to valve actuator	Motorised Butterfly valves										
	1	Makeup water Tank For cooling Tower																	
1		Water High Level	1					Level Sensor										1	
2		Water Medium Level																	
3		Water Low Level																	
	9	AHU'S duel VFD																	
1		AHU start/stop command				9		Potential Free Contact from BMS to fan Starter panel	Acceptance of Potential Free Output in AHU Panel										
2		VFD speed control		18				0-10 Vdc from BMS controller to VFD	Provision of 0-10 Vdc in VFD for speed control										
3		VFD speed feedback	9					acceptance of 0-10 Vdc from VFD	Provision of 0-10 Vdc in VFD for Speedfeed back										
4		VFD error code			9			Signal from Pump panel to BMS	Potential Free Contact in VFD										
5		Supply air duct static pressure	9					Air DP Sensor							9				
6		Supply air duct pressure set point																	

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

7		AHU on/off status (via DP switch)			9			Signal from DP switch to BMS (DP switch across fan)						9			
8		Switch mode (VFD/bypass)			18			Signal from VFD panel to BMS	Provision of PFC in VFD panel								
9		Return air temperature	9					signal from Temp sensor to BMS			9						
11		Supply air temperature set point															
12		Chilled water valve % open command		9				o to 10 Vdc to PIBVC	Acceptance of o to 10vdc in PIBVC								
13		Filter Status			9			DP Switch Across Filter provide signal to BMS						9			
14		Motor overload trip			18			PF Contact from AHU Panel	provision of PFC in AHU panel								
15		Fire alarm interlock			9			signal from fire Control module to BMS	provision of PFC in fire control module								
16		Soft integration				90											
	56	AHU'S single VFD															
1		AHU start/stop command			56			Potential Free Contact from BMS to fan Starter panel	Acceptance of Potential Free Output in AHU Panel								
2		VFD speed control		56				0-10 Vdc from BMS controller to VFD	Provision of 0-10 Vdc in VFD for speed control								
3		VFD speed feedback						acceptance of 0-10 Vdc from VFD	Provision of 0-10 Vdc in VFD for Speedfeedback								
4		VFD error code						Signal from Pump panel to BMS	Potential Free Contact in VFD								

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

5		Supply air duct static pressure	56				Air DP Sensor					56			
6		Supply air duct pressure set point													
7		AHU on/off status (via DP switch)			56		Signal from DP switch to BMS (DP switch across fan)						56		
8		Switch mode (VFD/bypass)			56		Signal from VFD panel to BMS	Provision of PFC in VFD panel							
9		Return air temperature	56				signal from Temp sensor to BMS				56				
11		Supply air temperature set point													
12		Chilled water valve % open command			56		o to 10 Vdc to PIBVC	Acceptance of o to 10vdc in PIBVC							
13		Filter Status			56		DP Switch Across Filter provide signal to BMS						56		
14		Motor overload trip			56		PF Contact from AHU Panel	provision of PFC in AHU panel							
15		Fire alarm interlock			56		signal from fire Control module to BMS	provision of PFC in fire control module							
16		Soft integration				560									
	1	TFA (Treated Fresh Air Unit) with VFD													
1		TFA Fan wheel start/stop				1	Potential Free Contact from BMS to fan Starter panel	Acceptance of Potential Free Output in AHU Panel							

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

		command															
2		VFD speed control		1				0-10 Vdc from BMS controller to VFD	Provision of 0-10 Vdc in VFD for speed control								
3		VFD speed feedback	1					acceptance of 0-10 Vdc from VFD	Provision of 0-10 Vdc in VFD for Speedfeed back								
4		TFA VFD error code			1			Signal from Pump panel to BMS	Potential Free Contact in VFD								
5		Supply air duct static pressure	1					Air DP Sensor				1					
6		Supply air duct pressure set point															
7		TFA wheel on/off status (via DP switch)			1			Signal from DP switch to BMS (DP switch across fan)					1				
8		Switch mode (VFD/bypass)			1			Signal from VFD panel to BMS	Provision of PFC in VFD panel								
9		Return air temperature	1					signal from Temp sensor to BMS			1						
10		Supply air temperature	1								1						
11		Supply air temperature set point						o to 10 Vdc to PIBVC	Acceptance of o to 10vdc in PIBVC								
12		Chilled water valve % open command		1				DP Switch Across Filter provide signal to BMS									
13		TFA Filter Status Monitoring			1			PF Contact from AHU Panel	provision of PFC in AHU panel					1			

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

14		Motor overload trip			1		signal from fire Control module to BMS	provision of PFC in fire control module									
15		Fire alarm interlock			1		PF contact From Fas system										
16		Soft integration				10											
	20	TFA/ fresh air fan with DOL starter															
1		Fan start/stop command				20	Potential Free Contact from BMS to fan Starter panel	Acceptance of Potential Free Output in starter Panel									
		Fan ON/OFF status			20		signal form starter panel to BMS	provision of PFC in Starter panel									
		Fan Auto / Manual status			20		signal form starter panel to BMS	provision of PFC in Starter panel									
		Fan trip status			20		signal form starter panel to BMS	provision of PFC in Starter panel									
	11	Water tank automation															
		water level 0 to 100	11				Signal from level sensor to BMS										11
		Motorised valve start/ stop command			11		CMD from BMS to Motorised valve Supply & Installation by By BMS vendor										
		Valve ON/OFF status			11		Signal from motorised valve to BMS										

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

	1	Pump room Automation						Requirement to be finalise later, bidder have to consider 1 no. IP DDC having inbuilt memory and 1 no. DDC panel for pump control.									
	1	STP pump automation						Requirement to be finalise later, bidder have to consider 1 no. IP DDC having inbuilt memory and 1 no. DDC panel for pump control.									
	13	Fire alarm panel integration					3589	integration with existing NOTIFIER fire alarm system, Graphical 2D view of all detectors and devices in BMS software around 3646 soft points.									
	19	LIFT					210	Status monitoring though Rs-485 port									
	20	Energy Meter					300	Status, Voltage, load, current, KWH, etc. through RS-485 port									
	4	UPS					80	Status, In/Out Voltage, Current, Load, Battery voltage, Battery charging status, Battery temperature, Run Hour etc. through RS-485 port									

TENDER FOR BUILDING MANAGEMENT SYSTEM IN NISM CAMPUS AT PATALGANGA

	8	PAC					80	status, voltage, compressor status, setpoint, ambient temp, WLD status etc. through RS-485 port									
	3	DG set					60	Voltage, load, current, battery charger status, battery voltage, frequency, Auto/ Manual status etc. through RS-485 port									
		Total	195	153	512	146	5149			27	67	1	66	132	2	23	16
Grand Total of Hard point			1006.00														
Grand Total of soft point			5149.00														
Spare hard point @ 15%			150.90														
Spare soft point @ 25%			1287.25														
Total hard points for tender			1156.90														
total soft points for tender			6436.25														
Grand total for tender			7593.15				Say 7500										

LIST OF APPROVED MAKES

Note:

1. The Contractor shall obtain prior approval from the Employer before placing order for any specific material. The Contractor shall make a detailed submittal with catalogues and highlight proposed specifications applicable for the work.
2. Wherever applicable, the Employer may approve any material equivalent to that specified in the tender subject to proof being offered by the Contractor for equivalence to his satisfaction.
3. Unless otherwise specified, the brand / make of the material as specified in the item nomenclature and in the list of approved materials attached in the tender, shall be used in the work.
4. In case of non-availability of the brand specified in the agreement, the Contractor shall be allowed to use alternate equivalent brand of the material subject to submission of documentary evidence of non - availability of the specified brand. The necessary cost adjustments on account of above change shall be made for the material.

LIST OF APPROVED MAKES

#	Description	Approved Make
1	SOFTWARE	Honeywell- EBI/ Trane- tracer ES/ Siemens- Desigo CC/ Johnson Control - Metasys 8.1
2	DDC	Honeywell-Comfort Point/ Trane-Tracer/ Siemens-PXC, DXR Series / Johnson Control - NAE Series, NCA Series & FE series.
3	DDC Panel	Rittal / Pyrotech
4	Temp/Pressure sensor	Greystone/ Thermokon/ Dwyer/ Siemens/ Honeywell
5	Supply Air Temperature Sensor	Greystone/ Thermokon/ Dwyer/ Siemens/ Honeywell
6	Air/Water DP Switch	Greystone/ Thermokon/ Dwyer/ Siemens/ Honeywell
7	Level Sensor	Filpro/ Veksler
8	Motorized Butterfly/ Ball valves	Honeywell/ Belimo/ Siemens
9	Other Valves	Honeywell/ Belimo/ Zoloto
10	Cables	Havells/ Technoflex / RR Kable/ Masterflex/(For Cat-6 - Dlink/ DG Link/ Legrand)
11	Conduit	Precision, BEC
12	BMS Server	DELL-PowerEdge T430 Or Equivalent in HP
13	Workstation	DELL/ HP
14	MCCB & MCB's	LEAGRAN / SIEMENS / L&T / HAGGER / ABB
15	Selector Switch	KAYCEE / SIEMENS / L&T (SALZER)
16	Indicating Lights	L&T / SCHNEIDER / BCH
17	G.I. Pipe	JINDAL / ZENITH / TATA