

E-TENDER DOCUMENT

**NATIONAL INSTITUTE OF TECHNOLOGY JAMSHEDPUR
JAMSHEDPUR (JHARKHAND)- 831014**

(An Institution of National Importance under Ministry of HRD, Govt. of India)



NOTICE INVITING TENDER

(e-Procurement mode)

Tender Notice No. : NITJSR/DSC/CUE/2016/65 Dated: 03/11/2016

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**TENDER FOR SUPPLY & INSTALLATION OF EQUIPMENT FOR
" SMART CAMPUS USING WIRELESS SENSOR NETWORK "**
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LAST DATE OF SUBMISSION OF TENDER: 05/12/2016 UP-TO 17.00 Hrs

DATE OF OPENING OF TENDER: 06/12/2016/ **AT 11.00** Hrs

KIND ATTENTION FOR TAKING ASSISTANCE, IF ANY.

CPP Portal web site: www.eprocure.gov.in
CPP Portal Help Desk Toll Free No.: 18002337315, 180030702232
Mobile: 91 + 7878007972, 91 + 7878007973

NIT Jamshedpur web site : www.nitjsr.ac.in
NIT Jamshedpur Help No.: (91)+0657-2373629, 2374102, 2374249

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Prepared by: CENTRAL STORE SECTION, NIT JAMSHEDPUR

E-PROCUREMENT OPEN TENDER NOTICE

Tender Notice No. : NITJSR/DSC/CUE/2016/65 Dated: 03/11/2016

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**TENDER FOR SUPPLY & INSTALLATION OF EQUIPMENT FOR
"SMART CAMPUS USING WIRELESS SENSOR NETWORK"**

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National Institute of Technology Jamshedpur invites E- tender in two bid systems (Technical and Financial) from reputed Indian Manufacturers or their authorized suppliers for supply, integration & Installation of equipment for **"SMART CAMPUS USING WIRELESS SENSOR NETWORK"** as specified in the tender documents.

Interested and Reputed Indian Manufacturers or their authorized agents/ dealers/ distributors/channel partners /Suppliers are requested to send their offer on-line in two bid systems (Technical and Financial) for supply, integration & Installation of required equipment.

Tender must be submitted for full quantity and as per Technical specification through CPP Portal site (www.eprocure.gov.in/eprocure/app).

The complete Tender document is available on CPP Portal site against Tender reference number: **Tender Notice No. : NITJSR/DSC/CUE/2016/65 Dated: 03/11/2016** (www.eprocure.gov.in/eprocure/app)

The tenderers can download the tender set from this web site. The details of tender are also available at NIT Jamshedpur web-site <http://www.nitjsr.ac.in>

Only on-line bids through the e-procurement portal of NIC will be accepted. Last date of bids submission is 05/12/2016 at 17:00 Hrs.

(Registrar I/C)
NIT, Jamshedpur

NATIONAL INSTITUTE OF TECHNOLOGY JAMSHEDPUR
JAMSHEDPUR (JHARKHAND)- 831014
(An Institution of National Importance under Ministry of HRD, Govt. of India)

E-PROCUREMENT OPEN TENDER NOTICE

Tender Notice No. : NITJSR/DSC/CUE/2016/65

Dated: 03/11/2016

SCHEDULE

Name of Organization	National Institute of Technology Jamshedpur
Tender Type(Open/Limited/EOI/Auction/Single)	Open
Tender Category (Services/Goods/works)	Goods
Type/Form of Contract (Work/Supply/Auction/Service/Buy/Empanelment/ Sell)	Goods
Product Category (Civil Works/Electrical Works/Fleet Management/ Computer Systems)	Computer System
Is Multi Currency Allowed	No
Date of Issue/Publishing	03/11/2016 (11:30 Hrs)
Document Download Start Date	03/11/2016 (11:30 Hrs)
Document Download End Date	05/12/2016 (17:00 Hrs)
Date for Pre-Bid Conference	NA
Venue of Pre-Bid Conference	NA
Last Date &Time for Uploading of Bids	05/12/2016 (17:00 Hrs)
Date and Time of Opening of Technical Bids	06/12/2016 (11:00 Hrs)
Date and Time of Opening of Financial Bids	08/12/2016 (11:00 Hrs)
Tender Fee	NIL
EMD	Rs. 10,000/- For (EMD) (To be paid through NEFT/RTGS). NIT Jamshedpur Bank details are as under: Name of the Bank A/C : NIT Jamshedpur SBI A/C No. : 10678396019 Name of the Bank : State Bank of India, NIT Branch, Jamshedpur-831014 IFSC Code : SBIN0001882 MICR Code : 831002004 (This is mandatory that UTR Number is provided in the on-line quotation/bid). (Ref. UTR Column of the Technical Bid for prequalification Annexure-II)
No. of Covers (1/2/3/4)	02
Bid Validity days (180/120/90/60/30)	90 days (From date of opening of tender)
Address for Communication	Registrar, NIT Jamshedpur-831 014
Contact No.	0657-2373629, 2374102, 2374249
Fax No.	0657-2373246
E-mail Address	registrar@nitjsr.ac.in

E-PROCUREMENT OPEN TENDER NOTICE

Tender Notice No. : NITJSR/DSC/CUE/2016/65

Dated: 03/11/2016

IMPORTANT INFORMATION TO THE BIDDERS

Any bidder may search the tender through the following process:

1. Go to the www.eprocure.gov.in
2. Click on eprocurement
3. Click on tender search
4. Search with "NITJSR"
5. Click on Go
6. Tenders will appear

Detailed Process to search/Submission/Registration/Preparation/ the tender through the following process

Tender Documents may be downloaded from Central Public Procurement Portal <http://eprocure.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled / registered in e-procurement should enroll / register before participating through the website <http://eprocure.gov.in/eprocure/app>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at "Instructions for online Bid Submission".

Tenderers can access tender documents on the website (For searching in the NIC site, kindly go to Tender Search option and type 'National Institute of Technology Jamshedpur'. Thereafter, Click on "GO" button to view all NIT Jamshedpur tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <http://eprocure.gov.in/eprocure/app> as per the schedule given in the next page.

No manual bids will be accepted. All quotation (both Technical and Financial) should be submitted in the e-procurement portal.

Instructions for Online Bid Submission:

As per the directives of Department of Expenditure, this tender document has been published on the Central Public Procurement (CPP) Portal ([URL:http://eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app)). The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the

bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <http://eprocure.gov.in/eprocure/app>

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <http://eprocure.gov.in/eprocure/app>) by clicking on the link "Click here to Enroll". Enrolment on the CPP Portal is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (DSC) (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their userID / password and the password of the DSC / eToken.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "on-line" to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever, EMD/Tender fees is sought, bidders need to pay the tender fee and EMD separately on-line through NEFT/RTGS (Refer to Schedule).
- 4) A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

OR

In some cases Financial Bids can be submitted in PDF format as well (in lieu of BOQ).

- 5) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 6) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 7) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 9) Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

General Instructions to the Bidders

- 1) The tenders will be received online through portal <http://eprocure.gov.in/eprocure/app> . In the Technical Bids, the bidders are required to upload all the documents in pdf format.
- 2) Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <https://eprocure.gov.in/eprocure/app>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are

available in the web site <https://eprocure.gov.in/eprocure/app> under the link "Information about DSC".

- 3) Tenderer are advised to follow the instructions provided in the "Instructions to the Tenderer" for the e-submission of the bids online through the Central Public Procurement Portal for e-Procurement at <https://eprocure.gov.in/eprocure/app>

KINDLY ATTENTION: FOR TAKING ASSISTANCE, IF ANY.

**CPP Portal web site: www.eprocure.gov.in
CPP Portal Help Desk Toll Free No.: 18002337315, 180030702232
Mobile:91+ 7878007972, 91+7878007973**

**NIT Jamshedpur web site :www.nitjsr.ac.in
NIT Jamshedpur Help line: 0657-2373629, 2374102, 2374249**

Tender Notice No. : NITJSR/DSC/CUE/2016/65 Dated: 03/11/2016

CHAPTER 1: OBJECT OF THE PROJECT **&** **INSTRUCTIONS TO THE BIDDERS**

PROJECT SUMMARY

A smart campus uses digital technologies and information and communication technologies (ICT) to enhance quality and performance of campus services to reduce environmental pollution, security threats, chaos traffic and parking management and resource consumption etc. with reduced costs.

Wireless sensor networks represent an emerging set of technologies that will have profound effects across a range of medical, industrial, scientific and governmental applications. A wireless sensor network is made up of sensor nodes or devices. Each device possesses the ability to monitor some aspect of its environment and is able to communicate its observations through other devices to a destination where data from the network is gathered and processed.

This project is aimed to develop a smart campus for NIT JSR to find the different types of pollution like noise pollution, atmospheric pollution, timely disposal of garbage, structured health monitoring in the campus like building, roads, traffic and parking management and of security measures of the campus round the clock using Wireless Sensor Network.

Objective of the Project

- Preventing Noise Pollution
- Preventing Atmospheric Pollution
- Proper Disposal of Garbage
- Structured health monitoring
- Traffic, Security and Parking management

Methodology

- Initially different tools, techniques, protocol, hardware and software available in the present scenario have been examined.
- A prototype will be developed.
- A test bed will be created.
- Installation of hardware in the test bed
- A protocol/Algorithm will be devised.
- It will be implemented and tested using simulation tools.

- Using simulation tools QOS and performance of the system will be examined.

By incorporating the use of a wireless Sensor Network (WSN) within the surveillance equipment the efficiency of the time and cost can be drastically improved, as the new network would be virtually autonomous.

Network Architecture of Smart Campus NIT JSR using WSN

Impact of our Project on current state of art

There are few impacts of our project on current state of art

1. Manual system is converted into automated system.
2. Pollution free environment can be sensed.
3. Smoother traffic management inside campus.
4. Improved campus life.
5. Proper disposal of garbage.
6. Building health will be monitored regularly for proper maintenance.
7. Smart campus security will be provided that will solve security problems due to open campus.
8. Proper and effective utilization of resources.
9. Error free and smoother system will provide solution for all the issues that we are facing.
10. Though it is an innovative project success of the project will enhance the dignity of the college as well as nation.

INSTRUCTIONS TO THE BIDDERS

1. The bidders who are desirous of participating in 'e'- procurement, can be downloaded the tender document from CPP Portal: <https://eprocure.gov.in/eprocure/app> . Bid has to be submitted online.
2. The bidders are advised to go through the tender documents and understand the terms and conditions specified therein before submitting the tender.
3. **PREPARATION OF BIDS:** The offer/bid should be prepared in two bid systems (i.e.) Technical bid and financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. Financial bid should indicate item wise price for the items mentioned in the technical bid. All document/information should be submitted in PDF format.

Technical Bid: Technical Bid should contain the following:

- a. Company Profile in prescribed TENDER FORM as TECHNICAL BID FOR PRE-QUALIFICATION in as ANNEXER "I"
- b. Declaration in prescribed format in as ANNEXER "II" (on printed letter head of the Bidder's firm indicating thereon Sales Tax Registration, FAX, Email, Telephone numbers, etc.)
- c. Compliance Report as per Annexure – "IV"

- d. All requisite supporting documents in support of all claims made in tender document and Annexure-I to Annexure-IV

Financial Bid: submit their price bids in the standard formats prescribed in the Tender documents. Financial Bid should contain Price only in prescribed TENDER FORM as FINANCIAL BID ANNEXER "III".

The bidder should upload the scanned copies of all the relevant certificates and documents of Technical bid and the financial bid online through portal <http://eprocure.gov.in/eprocure/app>.

4. **EARNEST MONEY DEPOSIT (EMD):**

- I. The offers must be accompanied with an Earnest Money Deposit (EMD) of **Rs. 10,000/** (Rs. Ten Thousand only) in INR. in the institute account through NEFT/RTGS in favour of National Institute of Technology Jamshedpur, failing which their bid will be rejected. The detail of the account is as follows:

- a) Name of the beneficiaries : National Institute of Technology Jamshedpur
- b) Name of the bank : State Bank of India
- c) Name of Branch : NIT Jamshedpur
- d) IFSC code : SBIN0001882
- e) Account Number : 10678396019

- II. Without EMD, the technical bid will not be considered and the tender will be rejected summarily.

- III. The EMD should remain valid for a period of 03 Months.

- IV. The bid security should be valid for 6 months. If the EMD is not found valid in terms of amount wise, period wise or otherwise, technical bid of the bidder are liable to be rejected.

- V. Earnest Money is liable to be forfeited and bid is liable to be rejected, if the tendered withdraw or amends / impairs or derogates from the tender in any respect.

- VI. EMD of unsuccessful bidders will be returned within one month of tender evaluation.

- VII. Withdrawal is not allowed after submission of tender. EMD of the successful bidders who fail to honor the exceptions of purchase order with prescribed terms & condition shall stand forfeited. No representation in this regard shall be entertained by this Institute.

VIII. EMD exemption is allowed only who are registered with the NSIC (National Small Industries Corporation) & Central Purchase Organization.

5. **MODE OF SUBMISSION OF BID:**

Tender must be submitted for full quantity and as per Technical specification through CPP Portal site (www.eprocure.gov.in/eprocure/app).

- I. Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- II. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- III. Bidder has to select the payment option as "on-line" to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever, EMD/Tender fee is sought, bidders need to pay the tender fee and EMD separately on-line through NEFT/RTGS (Refer to Schedule).
- IV. Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

6. **PERFORMANCE SECURITY:**

The successful bidder shall require to submit the performance security in the form of irrevocable bank guarantee issued by any Indian Nationalized Bank for an amount which is equal to the 5% of order value within 21 days from the date of receipt of the purchase order and should be kept valid for a period of 60 days beyond the date of completion of warranty period.

- I. EMD of the selected successful bidder will be refunded on after submission the performance security.
 - II. No interest will be payable by the NIT Jamshedpur on the Earnest Money Deposit/ performance security in any quarter.
7. All pages of the tender document shall be signed by the person or persons duly authorized to sign, on behalf of the bidder.
 8. Offers should be clearly written or typed without any cutting or over writing. All cutting / over writing must be initialed and stamped.
 9. Bidders must confirm the acceptance of all the terms and conditions of the tender.
 10. Any non-acceptance or deviations from the terms and conditions must be CLEARLY mentioned. However, bidder must note that any conditional offer or any deviation from the terms and conditions of this tender may render the bids liable for rejection.
 11. Furnishing of any false information/ fabricated document would lead to rejection of tender at any stage.
 12. There shall NOT be any price indication in the technical bid. If for any reason, it is found that the technical bid reveals the price bid related details in any manner whatsoever will be summarily rejected in the first instance itself.

13. **OPENING OF BIDS:**

- I. **Envelop** (Cover) 1 i.e. **Technical Bid** will be opened on the scheduled date and time mentioned in the tender enquiry in the NIT'S administrative building in presence of committee of officials and

interested vendors or their authorized representatives. Tenderer may be present at the time of opening of the Tender.

- II. **Envelop** (Cover) 2 i.e. **financial bids** of only those firms/agencies which satisfy technical requirements will be opened on the scheduled date and time mentioned in the tender.
 - III. . The bidders, whose Technical Bids are not found acceptable will be informed for the same and their financial bid will not be opened and EMD will be returned to them.
14. **PERIOD OF VALIDITY OF BIDS:** The bid shall remain valid and open for acceptance for a period of 90 days from the last date fixed for receiving the same. A bid valid for a shorter period shall be rejected by the Purchaser as non responsive.
 15. **AMENDMENT OF TENDER DOCUMENTS:** at any time prior to the last date of receipt of bids, Institute may for any reason, whether at its own initiative or in response to a clarification requested by prospective bidder, modify the Tender document by an amendment.
 16. **EXTENSION OF LAST DATE:** The Director, NIT Jamshedpur, may in his discretion extend the last date for submission of the Tender and such extension shall be binding on all the Bidders.
 17. **QUANTITY:** Quantity mentioned is only indicative. The actual requirement may vary at time of placement of the purchase order.
 18. **CLARIFICATION OF TENDER DOCUMENT:** a prospective bidder requiring any clarification of the Tender document may communicate to the Registrar NIT Jamshedpur during office hours.
 19. **DELIVERY INTEGRATION & INSTALLATION:**
 - I. Supply, integration & Installation must be completed within 30 days from the date of award of the work to the successful bidder.
 - II. Delivery: Free at site to the i.e. National Institute of Technology Jamshedpur.
 - III. **PAYMENT:**
 - IV. 100%Payment will be made only after the supply, integration & Installation of equipment in good and satisfactory condition and receipt of the relevant Bill & Challan each in triplicate with other relevant. No advance payment will be made.
 - V. No part payment/advance payment shall be made. Payment shall be made by on-line through **NEFT/RTGS**.
 20. **DISCRETION:** The Institute reserves the right of accepting any bid other than the lowest or even rejecting all the bids without assigning any reasons therefore. The decision of the Director NIT Jamshedpur OR Person authorized by him is final in all matters of tender and purchase.

CHAPTER 2: GENERAL TERMS AND CONDITIONS
(CONDITION OF CONTRACT)

1. **Prices:** The price should be quoted in net per unit in Indian Rupee F.O.R. NIT Jamshedpur (after breakup) and must include all Packing - Forwarding charges, Freight charges and delivery charges. The offer/bid should be exclusive of taxes and duties, which will be paid by the purchaser as applicable. However the percentage of taxes & duties shall be clearly indicated. The stores are required to be delivered at the Institute under the Suppliers' own arrangement, free of additional charges.

The price should be quoted without custom duty and excise duty, since NIT Jamshedpur is exempted from payment of Excise Duty and is eligible for concessional rate of custom duty. Necessary certificate will be issued on demand.

The Prices are to be quoted in Indian National Rupee (INR) in figures and words. In case of discrepancy, the rate quoted in words will be taken as valid. Over-writing /over-typing or erasing of the figures which render it doubtful or ambiguous are not allowed and shall render the bid invalid.

2. **Force Majeure:** The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
 - I. For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
 - II. If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

3. **Risk Purchase Clause:** In event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from the other source on the total risk of the supplier under risk purchase clause.

4. **Packing Instructions:** Each package will be marked on three sides with proper paint/indelible ink, the following:

- I. Item Nomenclature
- II. Order/Contract No.
- III. Country of Origin of Goods
- IV. Supplier's Name and Address
- V. Consignee details
- VI. Packing list reference number

5. **Documents:**

The supplier shall submit the following documents, if not submitted, the Supplier will be responsible for any consequent expenses.

- I. 3 Copies of the Supplier invoice showing contract number, goods' description, quantity, unit price, total amount;
- II. Acknowledgment of receipt of goods from the consignee(s) by the transporter;
- III. Manufacturer's/Supplier's warranty certificate;
- IV. Two copies of the packing list identifying the contents of each package.

6. **Delivery:** Supply and installation must be completed within 30 days from the date of award of the work to the successful bidder.

7. **Delayed delivery:** If the delivery is not made within the due date for any reason, the Committee will have the right to impose penalty 1% per week and the maximum deduction is 10% of the contract value / price.

8. **Resolution of Disputes:** The dispute resolution mechanism to be applied pursuant shall be as follows:

- I. In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director, NIT Jamshedpur and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
- II. In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.
- III. The venue of the arbitration shall be the place from where the order is issued.
- IV. Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within Seraikella-kharsawan, Jharkhand Jurisdiction only.

9. **Applicable Law:** The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of

jurisdiction. The place of jurisdiction would be Seraikella-kharsawan, Jharkhand INDIA.

10. **Supplier Integrity:** The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.
11. **Installation & Demonstration:** The supplier is required to done the installation and demonstration of the equipment within week of the arrival of materials at the NIT Jamshedpur site of installation, otherwise the penalty clause will be the same as per the supply of materials.
12. **Performance Security:** The successful bidder shall require to submit the performance security in the form of irrevocable bank guarantee issued by any Indian Nationalized Bank for an amount which is equal to the 5% of payable amount value within 21 days from the date of receipt of the purchase order and should be kept valid for a period of 60 days beyond the date of completion of warranty period.
13. **Warranty:** Warranty period shall be **60 months** from date of installation of Goods at the NIT, Jamshedpur site of installation. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. **The warranty should be comprehensive on site.**
14. **Governing Language:** The contract shall be written in English language. English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.
15. **Taxes and Duties:** Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., until delivery of the contracted Goods to the Purchaser. As regards sales tax Service tax NIT Jamshedpur is not authorized to issue C or D form, therefore, Bidder Firm/Manufacturer should registered under Jharkhand Sales Tax. National Institute of Technology Jamshedpur is eligible for exemption from Excise Duty and Customs Duty.
16. **Payment:** For Indigenous supplies, 100% payment shall be made by the Purchaser against delivery, inspection, successful installation, commissioning and acceptance of the equipment at NIT Jamshedpur in good condition and to the entire satisfaction of the Purchaser and on production of unconditional performance bank guarantee and on receipt of the relevant Bill & Challan each in triplicate with other relevant documents. No advance payment will be made.
17. **Application Specialist:** The Tenderer should mention in the Techno-Commercial bid the availability and names of Application Specialist and Service Engineers in the nearest regional office.
18. **Site Preparation:** The supplier shall inform to the Institute about the site preparation, if any, needed for the installation of equipment, immediately after the receipt of the purchase order. The supplier must provide complete

details regarding space and all the other infrastructural requirements needed for the equipment, which the Institute should arrange before the arrival of the equipment to ensure its timely installation and smooth operation thereafter.

The supplier shall visit the Institute and see the site where the equipment is to be installed and may offer his advice and render assistance to the Institute in the preparation of the site and other pre-installation requirements.

19.Pre-Installation requirement: The bidder should mentioned pre-installation requirements for the equipment like ambient temperature, humidity, whether specification, power specifications, etc., when items are provided full performance satisfactions, should be demonstrated.

20. Spare Parts: The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- I. Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
- II. In the event of termination of production of the spare parts:
- III. Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
- IV. Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order.

21.Defective Equipment: If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, un-merchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the Tenderer with 18% interest if such payments for such equipment have already been made. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 45 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges. In case supplier fails to replace above item as per above terms & conditions, NIT Jamshedpur may consider "Banning" the supplier.

22. Termination for Default: The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

- I. If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser; or

II. If the Supplier fails to perform any other obligation(s) under the Contract.

III. If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this Clause:

I. "**Corrupt practice**" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

II. "**Fraudulent practice**" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.

23. **ACKNOWLEDGEMENT:** Receipt of the Order should be acknowledged within a week.

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CHAPTER 3: SCHEDULE OF REQUIREMENTS (BILL OF QUANTITY)

Sensor notes required for Smart Campus using WSN Project

Sl No.	Items	Nos.
1.	802.15.4-Ethernet data concentrator (*)	1
2.	Mote-PC USB interface board (*)	1
3.	Temperature, Humidity, Light & Accelerometer sensor (+)	4
4.	Temperature, Humidity, Light & Accelerometer sensor board (*)	1
5.	Temperature, CO & CO ₂ sensor board. (*)	3
6.	PIR, Magnetic & Microphone sensor board with buzzer (*)	4
7.	Analog & digital data acquisition board (*)	1
8.	CO, CO ₂ & dust particle concentration sensor board (*)	4
9.	Mote Module with PCB Antenna (*)	2
10.	Mote Module with 5dBi external antenna (*)	2
11.	Mote-PC USB interface board (*)	4
12.	CO & CO ₂ sensor (+)	4
13.	PIR, Magnetic, microphone sensor (+)	4
14.	Camera sensor (+)	4
15.	Server	1
16.	Software (Simulation and monitoring)	1

Note:

- All sensor hardware indicated as (+) must be compatible with (*).
- Vendors should be instructed to quote for the compatible items only otherwise their quotation will not be entertained.

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CHAPTER 4: SPECIFICATIONS AND ALLIED TECHNICAL DETAILS

Sl. No.	Description of item	Technical Specifications
1.	802.15.4-Ethernet data concentrator (*)	<ul style="list-style-type: none"> • 2.4GHz IEEE 802.15.4 ethernet bridge • 802.15.4 wireless sensor gateway compatible with TinyOS or any other OS • Sink node image reprogramming capability • 3 USB ports usable as WSN testbed & node reprogramming • Internal database to store raw data from the sensors • Comprehensible web interface
2.	Mote-PC USB interface board (*)	<ul style="list-style-type: none"> • Mote power (through powered USB connector) • Mote gateway connectivity (USB2UART Rx/Tx) • Mote reprogramming (acts as a programming downloader)
3.	Temperature, Humidity, Light & Accelerometer sensor (+)	<ul style="list-style-type: none"> • IEEE 802.15.4 WSN mote fully compatible with TelosB platform • TI MSP430F2618 Microcontroller, CC2420 RF • TinyOS 2.x & any other OS Compatible • Temperature, Humidity, Light sensors • User & Reset Buttons • 3xLeds • USB Interface • 2xAA Batteries included
4.	Temperature, Humidity, Light & Accelerometer sensor board (*)	<ul style="list-style-type: none"> • Compatible with all CM3XXX and CM4XXX WSN Motes with Hirose® 51-pin connector • Sensirion® SHT11 Temperature & Humidity Sensor • Hamamatsu® S1087 light sensor (visible range) • Hamamatsu® S1087-01 light sensor (visible & infrared range) • Analog Devices® ADXL32 2-axis Accelerometer
5.	Temperature, CO & CO ₂ sensor board. (*)	CONIDS Co® GS-02A CO ₂ SOHA TECH® SH-300-DC(CO ₂)
6.	PIR, Magnetic & Microphone sensor board with buzzer (*)	<ul style="list-style-type: none"> • Perkin Elmer Optoelectronics® LHI Infrared presence detection • AMSECO® AMS-10C Magnetic sensor • BSE Co.® (S)SPOB-413S44-RC3310 • User configurable buzzer
7.	Analog & digital data acquisition board (*)	LMV932 Texas Instruments® MAX232 MAXIM®

		51-pin connector Hirose®DF9B-51S-1V 3 pin male header molex Analog Devices® Terminal block 12 pins Modtronix® TB12B-F254 R4
8.	CO, CO ₂ & dust particle concentration sensor board (*)	CO NIDS Co® GS-02A CO2 SOHA TECH® SH-300-DC(CO2) Dust NIDS Co® SX-01E 51-pin connector Hirose® DF9B-51S-1V Jumpers
9.	Mote Module with PCB Antenna (*)	<ul style="list-style-type: none"> IEEE 802.15.4 WSN platform TI MSP430F1611 Microcontroller, CC2420 RF TinyOS 2.x &any other OS Compatible 2xAA Battery Holder PCB antenna Hirose® 51-pin connector
10.	Mote Module with 5dBi external antenna (*)	<ul style="list-style-type: none"> IEEE 802.15.4 WSN platform TI MSP430F1611 Microcontroller, CC2420 RF TinyOS 2.x &any other OS Compatible 2xAA Battery Holder External 5dBi SMA antenna included Hirose®51-pin connector
11.	Mote-PC USB interface board (*)	<ul style="list-style-type: none"> Mote power (through powered USB connector) Mote gateway connectivity (USB2UART Rx/Tx) Mote reprogramming (acts as a programming downloader)
12.	CO & CO ₂ sensor (+)	<ul style="list-style-type: none"> Compatiable with Temperature, CO & CO₂ sensorboard.
13.	PIR, Magnetic, microphone sensor (+)	<ul style="list-style-type: none"> Compatiable with PIR, Magnetic & Microphone sensor board
14.	Camera sensor (+)	<ul style="list-style-type: none"> Compatiable with camera sensor board
15	Server	Intel S1200BTL Server Mother Board Intel i7 processor 64 bit 4.2 GHz Clock Speed 16 GB RAM 10 TB HDD Windows 10 OS
16	Software (Simulation and monitoring)	Testing the sensor motes with the application software

Note:

- **All sensor hardware indicated as (+) must be compatible with (*).**
- **Vendors should be instructed to quote for the compatible items only otherwise their quotation will not be entertained**

FINANCIAL BID: (ANNEXURE- III)

NATIONAL INSTITUTE OF TECHNOLOGY JAMSHEDPUR
JAMSHEDPUR (JHARKHAND)- 831014
(An Institution of National Importance under Ministry of HRD, Govt. of India)

CHAPTER 5 : PRICE SCHEDULE

TENDER FORM (FINANCIAL BID)

To,

Registrar
National Institute of Technology,
Jamshedpur - 831014

Sir,

Sub: Submission of Financial Bid against Tender No. : **Tender Notice No. :**
NITJSR/DSC/CUE/2016/65 **Dated: 03/11/2016**

Sl. No.	Description of item & Specification	Quantity /Unit	Unit Price in Rs.	Excise Duty %	VAT/ CST %	Service /Octroi Tax %	Total Price in (INR)
1.	802.15.4-Ethernet data concentrator (*)						
2.	Mote-PC USB interface board (*)						
3.	Temperature, Humidity, Light & Accelerometer sensor (+)						
4.	Temperature, Humidity, Light & Accelerometer sensor board (*)						
5.	Temperature, CO & CO ₂ sensor board. (*)						
6.	PIR, Magnetic & Microphone sensor board with buzzer (*)						
7.	Analog & digital data acquisition board (*)						
8.	CO, CO ₂ & dust particle concentration sensor board (*)						
9.	Mote Module with PCB Antenna (*)						
10.	Mote Module with 5dBi external antenna (*)						
11.	Mote-PC USB interface board (*)						
12.	CO & CO ₂ sensor (+)						
13.	PIR, Magnetic, microphone sensor (+)						
14.	Camera sensor (+)						

15	Server						
16	Software (Simulation and monitoring)						
Total Price in Rs.							

Total cost in words. Rs.

We also confirm that we will abide by all the Terms & and we do not have any counter conditions.

(Signature of Bidder/authorized person)
Seal of the company/Firm

Place: _____

Date - _____

DECLARATION :(ANNEXURE-II)

NATIONAL INSTITUTE OF TECHNOLOGY JAMSHEDPUR
JAMSHEDPUR (JHARKHAND)- 831014
(An Institution of National Importance under Ministry of HRD, Govt. of India)

CHAPTER 6 : CONTRACT FORM

DECLARATION FORM

(Declaration should provide on printed letter head of the Bidder's Firm)

DECLARATION

To,
Registrar
National Institute of Technology
Jamshedpur - 831014

Sir,

Sub: Declaration against Tender Notice No. : NITJSR/DSC/CUE/2016/65 Dated:
03/11/2016

Having examined the details of Tender document, I / We hereby submit the prequalification documents and other relevant information.

I hereby certify that all the statements made and information supplied in the statements are true and correct to the best of my knowledge. I understand that if any information found incorrect, the application is liable to be cancelled.

I have furnished all information and details necessary for pre-qualification and have no further pertinent information to supply.

I certify that my firm is not **blacklisted / banned** from business by any organization.

I hereby accept the rules and procedures of the Institute for pre-qualification of contractor and agree that the Institute has the right to accept or reject any application without assigning a reason thereto.

I/we have not tampered/modified the tender forms in any manner. In case, if the same is found to be tampered/modified, I/we understand that my/our tender will be summarily rejected and I/we am/are liable to be banned from doing business with National Institute of Technology, Jamshedpur and /or prosecuted.

Place: _____
Date _____

(Signature of Bidder/authorized person)
Seal of the company/Firm

TECHNICAL BID :(ANNEXURE- I)
NATIONAL INSTITUTE OF TECHNOLOGY JAMSHEDPUR
JAMSHEDPUR (JHARKHAND)- 831014
(An Institution of National Importance under Ministry of HRD, Govt. of India)

Tender Notice No. : NITJSR/DSC/CUE/2016/65

Dated: 03/11/2016

CHAPTER 7: APPLICATION FORM(FOR PRE QUALIFICATION)

Sl. No.	Required Information	Bidders Response
1.	Name of Tendering Company / Firm/ Agency (Attach certificates of registration)	
2.	Full Address of Office with Telephone No. and FAX	
3.	E-Mail:	
4.	Details of Registration	
5.	Income Tax Registration No /PAN No. (Please Attach copy)	
6.	VAT/Sales Tax Registration No. (Attach copy)	
7.	Service Tax Registration Number(Please Attach copy)	
8.	Address of Local Service Center:	
9.	Details of Fee In favor of NIT Jamshedpur (Attach copy of proof)	EMD Fee : Rs. _____ through transaction UTR No. _____
10.	Details of Bank	Name of Bank: _____ Account No. : _____ IFSC Code : _____ MICR Code : _____
11.	Name of proprietor / Director of Company/Firm/Agency & address:	
12.	Classification of the bidder (a) Manufacturer (b) Authorized Agent (c) Authorized Dealer (d) Stockiest (e) others	
13.	Name of OEM (Original	

	Equipment/Goods Manufacturer)	
14.	Copy of Brochure/Leaflets / Technical Information, including Make & Model, of the item(s) have must to be attached.	
15.	Name, address, designation, phone, cell number and E Mail address of the Contract Person :	
16.	Whether quoted item confirms the specification of Tender?	
17.	Whether firm certifications have: (If yes, please attach proof of doc.)	
18.	Whether Firm agrees to abide by the terms and conditions of the tender document? In the event of award of the contract?	
19.	Whether firm agrees to give security deposit/Performance Bank Guarantee against warranty obligations?	
20.	P.Os Copies having executed equivalent or above amount, order copy With at least last 2 financial years.	
21.	List of Customers during last three years.	
22.	Annual Turnover of last three years as specified with proof of document	
23.	Is organization/any of its subsidiaries, blacklisted by any Academic Institutions/reputed organizations or institutions with proof of document.	
24.	Is bid valid for 90 days/or as specified	
25.	Is Bid document duly signed	
26.	Agreed to supply as specified	
27.	Payment Terms agreed as Specified	

Place: _____
Date _____

(Signature of Bidder/authorized person)
Seal of the company/Firm

(ANNEXURE-IV)

Compliance Report
NATIONAL INSTITUTE OF TECHNOLOGY JAMSHEDPUR
JAMSHEDPUR (JHARKHAND)- 831014
(An Institution of National Importance under Ministry of HRD, Govt. of India)

Tender Notice No. : NITJSR/DSC/CUE/2016/65

Dated: 03/11/2016

Sl. No.	Details	Yes / No	Documents Attachment Page Sl. No
1.	We have gone through the terms & conditions of the tender document		
2.	Bidder is registered Firm with proof of document		
3.	Proof of EMD of Rs. 10,000/- through NEFT /RTGS in favour of National Institute of Technology, NIT Jamshedpur is attached.		
4.	Our organization or any of its subsidiaries have not been blacklisted by any Govt. / Autonomous bodies / Universities / Govt. Institutes.		
5.	The quoted price is valid for 90 days /or as specified from the last date of submission and bid document is duly signed on each page.		
6.	VAT & TIN number copy attached		
7.	Service Tax Certificate attached, if applicable		
8.	Copy of purchase order(s) of equivalent or above amount supplied during last two years preferably from IISc./IIT/NIT/Govt. approved R & D laboratories/reputed organisation with proof of document		
9.	List of Customer during last three years with proof of document		
10.	Manufacturer/Sole Distributor/Authorised Dealer/ Registered Supplier with proof of document		
11.	Certificate required in terms of quality of product and Manufacturer with proof of document.		
12.	Technical specification as specified or better.		
13.	Is Bid document duly signed		
14.	Validity of the bid as specified		
15.	Delivery Period as specified		
16.	Payment Terms agreed as Specified		
17.	Agreed to provide Warrantee		
18.	Place of delivery as specified		
19.	Agreed to provide performance security as specified		
20.	Brochure/Leaflets / Technical Information / Picture including Make & Model, of the quoted item(s) have to be attached.		
21.	Name and Address of nearest service Centre from NIT Jamshedpur		

Place: _____
Date _____

(Signature of Bidder/authorized person)
Seal of the company/Firm

NATIONAL INSTITUTE OF TECHNOLOGY JAMSHEDPUR
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Dated: 03/11/2016

BID SUBMISSION

Online Bid Submission:

The Online bids (complete in all respect) must be uploaded online in **Two Envelops** as explained below:

Envelope – 1 (Following documents to be provided as single PDF file)			
Sl. No.	Document	Content	File Type
1.	Technical Bid	Basic Technical Details Of Bidder as per Annexure-I	PDF
2.		Declaration sheet as per Annexure- II	PDF
3.		Compliance Report as per Annexure - IV	PDF
4.		Technical supporting documents in support of all claims made in tender document and Annexure-I to Annexure-IV	PDF
Envelope – 2			
Sl. No.	Document	Content	File Type
1.	Financial Bid	Price bid should be submitted in PDF format as per Annexure-III	PDF