



National Institute of Technology, Manipur, Langol, Imphal West 795004

INVITATION LETTER FOR CIVIL WORKS

Package Code: TEQIP-III/2019/nitm/137

Current Date: 04/12/2019

Package Name: NITMN/Minor Civil work for Comp.Sc
Engineering (CSE)Dept.

Method: Contract Civil Works

To,

Dear Sir,

Sub: Inviting Tender for **Minor Civil work for Refurbishment of existing bamboo workshop LHs-9, 10 & 11 for of Computer Science and Engineering (CSE) Dept.**

1. You are invited to submit your most competitive Bid for the following works: -

Sr. No	Brief Description of the Works	Approximate value of Works (Rs.)	Expected Completion Period (in Days)
1	Refurbishment of existing bamboo workshop LHs-9, 10 & 11 for of Computer Science and Engineering (CSE) Dept.	1053427.00	60

2. Government of India has received a credit from the International Development Association (IDA) in various currencies equivalent to US\$ 360000000000 towards the cost of the Technical Education Quality Improvement Programme [TEQIP]-Phase III Project and intends to apply part of the Proceeds of this credit to eligible payments under the contract for which this invitation for Bid is issued.
3. The work: Refurbishment of Computer Science and Engineering Department NIT Manipur, Langol in Manipur state is being implemented by NIT Manipur, which is an autonomous society registered under the Societies Registration Act.

(Signature)

4. To assist you in the preparation of your Bid, you are requested to contact the Er. In charge of the Institute in the matter of filling up of the bid documents and:

- 1) Layout Drawings of the works;
- 2) Structural Details;
- 3) Detailed Bill of Quantities, with estimated rates and prices;
- 4) Technical Specifications.

5. You are requested to provide your offer latest **by 3:30 hrs. On 04/01/2020**

6. Bid will be opened in the presence of Bidders or their representatives who choose to attend at **4:00 on 04/1/2020** in the conference hall of

National Institute of Technology, Manipur, Langol, Imphal West 795004.

7. Liquidated Damages will be applied: Condition stated in the enclosed bidding document.

8. We look forward to receiving your Bid/Bid and thank you for your interest in this project.(Employer)



Name: Director

National Institute of Technology, Manipur

Address: Langol, Imphal West 795004, null

Tel. No: 03852058566

Fax No.



TENDER DOCUMENTS

GENERAL TERMS AND CONDITION & BOQ

NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR (An Autonomous Institute under MHRD GoI)

Issued to: -

Lamas

Executive Lias
National Institute of Technology
Manipur

NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR
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Ref.No:-Engg./19-20(minor civil-teqip III/01

Dated: -04/12/2019

NOTICE INVITING TENDER

The Executive Engineer ,NIT Manipur on behalf of Director,NIT Manipur invites sealed item rate tenders from approved and eligible Contractors of the institute for the following works.

Location of work	Name of work	Tendered Cost	Earnest Money	Time Allowed for completion	Last date and time for receipt of application for issue of tender form	Place of Sale of documents ,submission & opening	Cost of Bid Document
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NITM Langol Campus	Refurbishment of existing bamboo workshop LHs-(9,10 & 11 for Computer Science and Engineering (CSE) Dept.	1053427.00	21100.00	2Month	1600 Hrs. on 31-12-2019	TEQIP Cell ,NIT MANIPUR.	500/-

The intending bidders may collect the tender documents from Office of the TEQIP Cell,NIT Manipur ,Langol,Imphal (West) on any working day on or before 1600 hrs of 31/12/2019 on payment of non-refundable requisite fee amount.The bidders may also use the uploaded tender documents. However, in that case they are required to submit the requisite bid document cost along with the application on or before 1600 hrs of 31/12/2019.The Cost of Bid Document is to be in the form of Demand Draft or Deposit-Call receipt or Banker's cheque in favour of Director,NIT Manipur payable at SBI, Secretariat Branch, otherwise bid document will be rejected.

Filled up tender documents along with earnest money in the form of Demand Draft or Deposit-Call receipt or Banker's cheque in favour of "Director,NIT Manipur" payable at SBI, Secretariat Branch shall have to be submitted to the TEQIP Cell of the Institute on or before 04/1/2020 by 3.30PM. Tender shall be opened on the same day at 4.00 PM in presence of authorized representative of tenderer who choose to be present. The Institute reserves right to cancel any or all the tenders without assigning any reason.

(Signature)

It is compulsory for the Bidder, at his own cost, responsibility and risk, to visit, examine and familiarize himself with the site of works and its surroundings before submitting the bid

(Amas)

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Executive Engineer, NITM
For and On behalf of Director, NITM

CC.

- 1 The Director NIT Manipur.
2. The Coordinator, TEQIP Cell, NIT Manipur.
3. The DDO Incharge
4. All Institute approved Contractors.

(Amas)

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MINIMUM PRE-QUALIFICATION CRITERIA REQUIRE TO BE FULFILLED
BY THE INTENDING BIDDERS

- (a) Current income tax clearance certificate or PAN card.
- (b) GST certificate.
- (c) Valid Contractor Registration Certificate.
- (d) Contractors those who are approved by the Institute.


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MODE OF SUBMISSION: Hard Copy.

The tender is to be submitted in sealed covers. Name of Works- as mentioned in the tender notice is to be specified on the envelope for each work, otherwise such envelope will not be opened.

This ENVELOPE shall contain the following:-

- 1) Earnest Money.
- 2) GST registration certificate.
- 3) Income tax clearance certificate/ PAN Card.
- 4) Valid Contractor Registration Certificate.
- 5) Filled up tender documents with signature
- 6) Turnover certificate for the last three years.


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General Terms and Condition

1.o. General

The contract means the document forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of NIT MANIPUR and the contractor, together with the documents referred to therein including these condition, the specification, design, drawings and instruction issued from time to time by the Engineer-in-Charge and all these taken together, shall be deemed to form one contract and shall be complementary to one another.

- 1.1. In the contract the following expression shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them.
- 1.2. National Institute of Technology Manipur, hereinafter called "NITM" propose to get the works executed as mentioned in the contract.
- 1.3. The work will be executed as per conceptual drawings provided by NITM.

2. OTHER DEFINITIONS

- a. **ENGINEER-IN-CHARGE** means Executive Engineer of NITM who shall supervise and be in-charge of the work from time to time.
- b. **WORKS OR WORK:** - The expression works or work shall unless there be something either in the subject or context repugnant so much construction, be constructed and taken to mean the work by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
- c. **CONTRACTOR:** - The contractor shall mean the individual, firm or company as approved by the institute.
- d. **DRAWINGS** mean the drawings referred to in the Bill of Quantities, specification and any modification of such drawings or such other drawings as many from time to time being furnished or approved by NITM.
- e. **SITE:** - Site means NITM Campus Langol.
- f. **APPROVAL** means approved in writing including subsequent written confirmation of previous verbal approval.
- g. **WRITING** means any manuscript typed, written or printed statement under or over signature and/ or seal as the case may be.
- h. **MONTH** means English Calendar month 'Day' means a calendar day of 24 Hrs each.


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- i. **CONTRACT VALUE** means the sum for which the tender is accepted as per the letter of intent.
- j. **LANGUAGE** all documents and correspondence in respect of this contract shall be in English Language.
- k. **BILL OF QUANTITIES or SCHEDULE OF QUANTITY** means the price and completed BOQ or Schedule of Quantities forming part of the tender.
- l. **IMPLEMENTING/EXECUTING AGENCY** means Engineering Cell NITM.
- m. **TENDER** means the contractor's priced offer to NITM for the execution and completion of the work and the remedying of any defects therein in accordance with the provision of the Contract, as accepted by the letter of intent or Award letter. The word TENDER is synonymous with bid and the word TENDER DOCUMENT with "Bidding Document" or "offer document".
- n. The heading in the clause / condition of tender documents is for convenience only and shall not be used for interpretation of the clause / condition. Words imparting the singular meaning only also include the plurals and vice versa where the context requires. Words importing persons or parties shall include firms and corporations and organization having legal capacities.

2.0. INSPECTION OF SITE AND COLLECTING LOCAL INFORMATION

It is compulsory for the Bidder, at his own cost, responsibility and risk, to visit, examine and familiarize himself with the site of works and its surroundings before submitting the bid

2.1. **ACCESS BY ROAD :-** All weather approach road is available upto working site.


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2.2. HANDING OVER & CLEARING OF SITE: - Site is ready.

3.0. SCOPE OF WORK

3.1. The scope of work covered in this tender shall be as per the BOQ, specifications, drawings, instructions, orders issued to the contractor from time to time during the execution of work. **The quantity of various items as entered in the BOQ are indicative only and may vary depending upon the actual requirement. The contractor shall be bound to carry out and complete the stipulated work irrespective of the variation in individual items specified in the bill of quantities.**

4. VALIDITY OF TENDER.

The tender for the works shall remain open for acceptance for a period thirty days from the date of opening of price bid of tenders. The earnest money will be forfeited without any prejudice to any right or remedy, in case the contractor withdraws his tender during the validity period or in case he changes his offer to his benefits which are not acceptable to NITM. The validity period may be extended on mutual consent.

5.0. ACCEPTANCE OF TENDER

The NITM reserves to itself the authority to reject any or all the tenders received without assigning any reason. The acceptance of a tender shall be effective w.e.f. the date on which the letter of intent of acceptance of the tender is put in the communication by the NITM. NITM also reserve the right to Split the work among two or more parties at lowest negotiated rate without assigning any reason thereof. The contractor is bound to accept the portion of work as offered by NITM after Split up at the quoted / negotiated rates.

6.0 A. SET OF CONTRACT DOCUMENTS.

The following documents will complete a set of tender document.

- i. NIT .
- ii. General condition of the contract including special condition of the contract and prescribed formats.
- iii. Schedule of rates / Bill of quantities.
- iv. Technical specifications

7.0 EARNEST MONEY DEPOSIT.

Earnest money deposit of amounting as mentioned in the NIT is required to be submitted along with the tender shall be in the form of Demand


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Draft or call in Deposit or Banker's cheque payable at place as mentioned in "Notice inviting Tenders in favour of Director NITM from any Nationalized / Scheduled Bank of India. The EMD shall be valid for minimum period of 90 days (Ninety days) from last day of submission of tender.

7.1 The EMD of all unsuccessful tenders will be returned within 15 (fifteen) days of the Award of the contract to successful bidder.

7.2 No interest will be payable by the NITM on the said amount covered under EMD/SD.

7.3 EMD of successful tenderer, if deposited in the form of Demand Draft, shall be treated as part of security deposit.

8. MOBILIZATION ADVANCE

No Mobilization advance will be paid.

9.0 INITIAL SECURITY DEPOSIT

Performance guarantee @5% of the bid value has to be deposited for awarding notice to proceed with work and this will be returned on completion of work. Further security deposit or retention money shall be deducted from each running bill of the contractor @ 5% of the gross value of running account bill till it reaches 5% of the contract value including 2% EMD. The security deposit or retention money shall be refunded to the contractor after expiry of defects liability period.

10.0 MOBILIZATION OF MEN, MATERIALS AND MACHINERY:

10.1 All expenses towards mobilization at site and de-mobilization including bringing in equipment, work force, materials, dismantling the equipments, clearing the site etc. shall be deemed to be included in price quoted and no separate payment on account of such expenses shall be entertained.

10.2 It shall be responsibility of the contractor to obtain the approval for any revision and / or modification desired by him from NITM before implementation. Also such revision and/or modifications if accepted /approved by the NITM shall be carried at no extra cost to NITM.

10.3 All materials, once bought by the contractor within the project area, will not be allowed to be removed from the premises without the written permission of the NITM.

11.0 INCOME TAX DEDUCTION

Income tax deductions shall be made from all payment made to the contractor including advances against work done, as per the rules and regulation in force, in accordance with the income tax act prevailing from time to time.


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12.0 TAXES AND DUTIES.

12.1. The rate quoted by the contractor shall be deemed to be inclusive of all taxes.

13. RATES TO BE FIRM.

The rates quoted by the tenderer shall be firm and fixed for the entire period of completion and till handing over of the work. No revision to rates or any escalation shall be allowed on account of any increase in price of materials, labor, POL and overheads etc or any other statutory increase during the entire contract period.

14. ESCALATION / PRICE VARIATION.

No claim on account of any price variation / Escalation on whatsoever ground shall be entertained at any stage of works. All rate as per BOQ quoted by contractor shall be firm and fixed for entire contract period as well as extended period for completion of the works. No escalation price variation clause shall be applicable on this contract.

15. EMPLOYMENT OF PERSONEL

15.1 The contractor shall employ only India National as his representatives, servants and workmen after verifying their antecedents and loyalty. He shall ensure that no personal of doubtful antecedents and any other nationality in any way is associated with the works.

15.2 The NITM shall have full power and without giving any reason to the contractor, immediately to get remove any representative, agent, servant and workmen or employee on account of misconduct negligence or incompetence or whose continued employment may in his opinion be undesirable. The contractor shall not be allowed any compensation on this account.


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16. TECHNICAL STAFF FOR WORK

The contractor shall employ at his own cost the adequate number of technical and other staff during the execution of this work depending upon the requirement of work. The contractor shall not be entitled for any extra payment in this regard. The technical staff should be available at site, whenever required by NITM to take instruction.

17. SECURED ADVANCE AGAINST NON- PERISHABLE MATERIALS.

Not Applicable.

18. MEASUREMENT OF WORKS.

Unless otherwise mentioned in the bill of quantities the measurement of works shall be done as per CPWD specification (as specified in Technical Specification of the tender) and if the same is not given in the CPWD specification, the same shall be measure as per the decision taken by the engineer in charge.

19. PAYMENT.

The bill shall be submitted by contractor all works executed and accordingly payment will be released after join verification as decided by the competent authority.

20. WORK ON SUNDAYS, HOLIDAYS AND DURING NIGHT.

For carrying out work on Sunday and holidays or during night, the contractor will approach the Engineer-in-Charge or his representative at least two days in advance and obtain his permission. The Engineer-in-Charge at his discretion can refuse such permission. The contractor shall have no claim on hid account whatsoever. If work demand, the contractor shall make arrangement to carry out the work on Sundays, Holidays and in two, Three shifts with the approval of Engineer-in-Charge at no extra cost to NITM.


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21. NO IDLE CHARGES TOWARDS LABOUR OR P & M ETC.

No idle charges or compensation shall be paid for idling of the contractor's labour, staff or P&M etc. on any ground or due to any reason whatsoever. NITM will not entertain any claim in the respect.

22. WORK TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, ORDERS ETC.

The contractor shall executed the whole and every part of the work in the most substantial and workman like manner both as regard materials and otherwise in every respect in strict accordance with the specification. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instruction of writing in respect of the work assigned by the Engineer-in-Charge.

The contractor shall comply with the provisions of the contract and execute the works with care and diligence and maintain the works and provide all labour and materials, tool and plants including for measurement and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these is specified or is reasonable inferred from the contract. The contractors shall take full responsibility for adequacy, suitability and safety of all the works.

24. TIME SCHEDULE & PROGRESS

Time allowed for carrying out all the works as entered in the tender shall be as mentioned in the "Memorandum to the Form of Tender" which shall be reckoned from the 10th day from the date on which the letter of intent is issued to the contractor. Time shall be the essence of the contract and contractor shall ensure the completion of the entire work within the stipulated time of completion.

25. SCHEDULE OF RATES .

The quantities shown against the various items of work are only approximate quantities which may vary as per the actual requirement at site.

26. INDIAN STANDARD

Wherever any reference is made any IS in any particular specification, drawings or bill of quantities, it mean the Indian standards edition with the amendments current at the last date of receipt of tender documents.


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27.0 MATERIALS AND SAMPLES

27.1 The materials / products used on the work shall be one of the approved make/ brands out of list of manufacturers/ s given in the tender documents. The contractor shall submit samples/ specimens out of approved makes of materials / products to the Engineer-in-Charge for prior approval. In exceptional circumstances Engineer-in-Charge may allow alternate equivalent makes / brands of products / materials at his sole direction. The final choice of brand/ make shall remain with the engineer-in-Charge, whose decision in the matter shall be final and binding and nothing extra on this account shall be payable to the contractor.


29. **CARE OF WORKS.** :- From the commencement to the completion of the works handing over to the NITM and contractor shall take full responsibility for the care thereof and all temporary works and in case any damage loss or injury shall happen to the works or to any part thereof or to any temporary works due to lack of precaution / negligence on part of contractor, the same shall be made good at his own cost.

31. PROHIBITION ON SUBLETTING

The contractor shall not sublet or assign the whole or part of the works except where otherwise provided, by the contract and even then only with the prior written consent of the NITM and such consent if given shall not relieve the contractor from any liability or obligation under the contract and he shall be responsible for the acts, defaults or neglects of any sub-contractor, his agent, servants or workman as full as if they were the acts, the defaults or neglects of the contractor, his agent servants or workman provided always that the provision of labour on piece work basis shall not be deemed to be a subletting under this clause

32. ALTERNATION IN SPECIFICATION, DESIGN & DRAWING.

32.1 The Engineer-in-Charge shall have power to make any alternation in, omissions from, additions to or substitution for the original specifications, drawings, design and instructions that may appear to him to be necessary during the progress of the work, and the contractor shall carry out the work in accordance with any instruction which may be given to him in writing signed by the Engineer-in-Charge and such alternations, omissions, additions, or substitution shall not invalidate the contract and any altered, additional or substituted work which the contract may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same condition in all respects on which he agreed to do the main work. The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work in the proportion that the altered, additional or substituted works bears to the


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original contract work, and the certificate of the Engineer-in-Charge shall be conclusive as to such proportion. Over and above this, a further period to extent of 25 percent of such extension shall be allowed to the contractor. The rates for such additional, altered or substituted work under this clause shall be worked out in accordance with the following provision in their respective order.

i. The rates for the additional, altered or substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work at the same rates as per specification.

ii. If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, the rates will be derived from the rates for a nearest similar item of work as are specified in the contract for the work. In case of composite tenders where two or more schedule of quantities / bill of quantities form part of the contract, the rates shall be derived from the nearest similar item in the schedule of quantities / bill of quantities of the particular part of work in which the deviation is involved falling that from the lowest of the nearest similar item in other schedule of quantity. The opinion of the Engineer-in-Charge as to whether or not the rate can be reasonably so derived from the item in this contract will be final and binding on the contractor.

iii. If the altered, additional or substituted work includes any work for which no rate is specified in the contract for the work and which cannot be derived in the manner specified in sub para(i) and (ii) from the similar class of work in the contract then such work shall be carried out from the price list of Godrej at the rates entered in the schedule of rates minus/plus the percentage which the tendered amount of scheduled items bears with the estimate amount of schedule item based on the schedule of rates. The schedule items means the items appearing in the schedule of rates published by Godrej as price list effective during the floating of tender

iv. if the rates for the altered, additional or substitute work cannot be determined in the manner specified in sub-clause (i) to (iii) above, then the contractor shall, within 7 days of the date of receipt of order to carry out the work, inform the Engineer-in-Charge of the rate which it is intension to charge for such class of work, supported by analysis of the rate or rates claimed, and the Engineer-in-Charge shall determine the rate of rates on the basis of prevailing market rate of the materials, labour, T&P etc. plus 10% (Ten percent) to cover the contractor supervision, overheads the profit and pay the contractor accordingly. The opinion of the Engineer-in-Charge as to the current market rates of the materials and quantum of labour involved per unit of measurement will be final and binding on the contractor.


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However, the Engineer-in-Charge, by notice in writing will be at liability to cancel his order to carry out such class of work an arrange to carry it out in such manner as he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates of items failing under the clause.

33. COMPENSATION FOR DELAY AND REMEDIES.

If the contractor fails to maintain the required progress in terms of relevant clause of contract, to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the Govt. on account of such breach, pay as agreed compensation the amount calculated at the rate stipulated below or such smaller amount as the Engineer-in-Charge (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every complete day /week (as applicable) that the progress work remains incomplete.

i. Completion period (as originally stipulated) @ 1% per week

Provided always that the total amount of compensation for delay to be paid under the condition shall not exceed 5% of the tendered value. The amount of compensation may be adjusted or set- off-against any sum payable to the contractor under this or any other contract with NITM.

34. DEFECTS LIABILITY PERIOD

The contractor shall be responsible for the rectification of defects in the works for a period Six months from the date of taking over of the works. Any defects discovered and brought to the notice of the contractor forthwith shall be attended to and rectified by him at his own cost and expense. In case the contractor fails to carry out these rectifications, the same may without prejudice to any other right or remedy available, be got rectified by NITM at the cost and expense of the contractor.

36. FORCE MAJEURE

Any delay in or failure of the performance of either party hereto shall not constitute default hereunder to give rise to any claims for damages, if any to the Extent such delay or failure of performance is caused by occurrences such as acts of God or the public enemy , expropriation, compliance with any order or request of Government authorities, acts of war, rebellions, sabotage fire, floods, illegal strikes, or riots (otherwise than among the contractors employees). Only extension of time shall be considered for Force Majeure conditions as accepted by NITM. No adjustment in contract price shall be allowed for reasons of force majeure.


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37. **ARBITRATION –**

Both the parties shall make efforts to settle the disputes or differences amicably. If amicable settlement is not possible the same shall be referred to the sole arbitrator of Director of NITM or the person appointed by Director, NITM and the decision of the arbitrator shall be final and binding on both the parties. Arbitration shall be accorded in Indian arbitration and conciliation Act. 1996.

38. **JURISDICTION**

The jurisdiction of agreement is Imphal (West).

39. **TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR** Without prejudice to any of the right or remedies under this contract if the contractor dies, the Engineer-in-charge shall have the option of terminating the contract without compensation to the contractor. If the contractor will not executed the works as per the construction programme or time scheduled entered the agreement including time extension if any due to the reasons attributable to him, NITM reserves the right to terminate or reduce his contract at any stage of contract period and got executed the work at the risk and cost the contractor.

40. **CLARIFICATION AFTER TENDER SUBMISSION**

Tenderers attention is drawn to the fact that during the period, the bids are under consideration, the bidders are advised to refrain from contacting by any means, the NITM and/or his employees/representatives on matters related to the bid under consideration and that if necessary, NITM will obtain clarifications in writing or as may be necessary. The tender evaluation and process of award of works is done by duly authorized Tender Security Committee and this committee is authorized to discuss and get clarification from the tenderers.


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SPECIAL CONDITIONS

1. "CPWD Specifications" wherever appearing in this document would mean "Latest Edition of CPWD Specifications with correction slips issued upto last date of receipt of tender.
2. No payment shall be made to the contractor for any damage caused by rain, snowfall, flood, earthquake or any other natural causes whatsoever during the execution of work. The damages to the work will be made good by the contractor at his own cost and no claim on this account shall be entertained.
3. The drawings/ sketches / Layout which are a part of this tender document are indicative/ conceptual for guidance only. Actual site specific layout and execution/ fabrication drawings shall be prepared and submitted by the contractor to obtain approval of Engineer-in-charge before actual execution of work
4. The contractor shall at his own cost arrange for necessary licenses / permissions/ clearance etc. required to import the material for completion of work within stipulated completion period.
5. If the material or finished work are not found acceptable, the contractor shall arrange for the replacement of material required for re-executing the work as per contract.
6. The rate quoted shall be inclusive of expenditure on the requisite approvals/ quality assurance tests/ certification to be carried out on the material and / or work as may be decided by Engineer-in-charge for which nothing extra shall be payable.
7. Maintenance Period: - The maintenance period shall be till the time of release of security deposit. It will be responsibility of contractor to rectify it as per requirement at his own cost failing which the same shall be done at his risk and cost.
8. All work should be completed following CPWD specification and as per direction of Engineer in charge.


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BOQ


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BILL OF QUANTITIES FOR BID

Bill of Work: Refurbishment of existing bamboo workshop Lhs-(9,10 &11for faculties staff-room of Computer Science and Engineering (CSE) Dept.

Sl. No.	Description of item	Quantity	Unit	Rate		Amount
				in fig	in words	
1	Demolition below G.L. upto 1 m.depth including stacking of serviceable materials and disposal of unserviceable materials within 50 m lead and including cutting the necessary reinforcement and separating out from R.C.C./R.B. work. R.C.C. work	121.84	cum			
2	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4(1 cement: 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600x600 mm (Single charged)	119.8	sqm			
3	Providing wood works in frames of doors, windows, clerestory windows & other frames, wrought framed & fixed in position. Local best quality Uningthou	5.74	cum			
4	Providing and fixing 12mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS:12823 Grade 1 Type II in panelling fixed in aluminium doors, windows shutters and partition frames with C.P brass/stainless steel screws etc. complete as per architectural drawing and directions of engineer-in-charge.Pre-laminated particle board with decorative lamination on one side and blacing lamination on other side	239.7	sqm			
TOTAL						

We agree to execute the works in accordance with the approved drawings and technical specifications at a total fixed contract price of Rs.....
(amount in figures) (Rs.....
(amount in words).

Signature of Contractor


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TECHNICAL SPECIFICATION OF WORK

1. General

These specification are for work to be done, items to be supplied, materials, to be used in the work shown and defined on the drawing and described herein, to the satisfaction of the Employer / Er In Charge of the work

- 1.1 The workmanship is to be the best possible and of a high standard. The Contractor shall take all steps immediately to make deficiencies if any noticed by the Employer / Er In Charge of the work. Use must be made of special tradesman in all aspects of the work and allowances must be made in the rates for the same.
- 1.2 The materials to be provided by the contractor shall be accordance with the samples already got approved from the Employer / Er In Charge of the work by the contractor and in conformity with specification and approved; list of manufactures and brand The contractor shall produce all invoices, vouchers or receipts for any materials if called upon to do so by The Employer / Er In Charge of the work.
- 1.3 Samples of all materials are to be submitted to the Employer / Er In Charge of the work for the approval before the contractor orders or deliver the materials to the site. Samples together with their packing are to be provided free of charge by. The contractor and should any materials to be rejected, they will be removed from the site at the contractor's expenses. All samples will be retained by the Employer / Er In Charge of the work for comparison with materials which will be delivered at site. Also the contractor will be required to submit the specimen finishes of colours, fabrics etc., for the approval of the Employer / Er In Charge of the work before proceeding with the work.
- 1.4 The contractor shall be responsible for providing and maintaining temporary coverage required for the protection of finished work. He is also to clean out all wood shaving, cut ends and other waste from all parts of the work before covering or in filling is constructed.
- 1.5 Contractor shall maintain uniform quality and consistency in workmanship throughout the execution of the work.
- 1.6 Site order Books / reports for the purpose of quick communication between the Er In Charge of the work / Er In Charge of the work's representative and the contractor or his agent or representative, site instruction books shall be maintained at site in the manner as described below.
- 1.7 Any communication, relating to the works may be conveyed through records in the site instruction book. Such communication from the Er In Charge of the work / Er In Charge of the work's representative to the contractor shall be deemed to have been adequately served in terms of the contract. Each site instruction book shall have machine number pages in triplicate and shall be carefully maintained and preserved by the contractor at site.

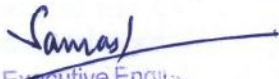

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- 1.8 The contractor shall check and verify all site levels and measurements. A copy of all such information passed on shall be given to the consultants.
- 1.9 Templates, boxes and moulds shall be accurately set out rigidly constructed so as to remain accurate during the time they are in use.
- 1.10 All unexposed surface of timber eg: - partition/paneling frames, false ceiling, backing, fillets, backs of door frames, cupboards framing, grounds etc are to be treated with two coats of approved timber preservative and anti termite paints before fixing or converging.

2. Joinery in woodwork

- 2.1 The contact surface between internal frame and skinning shall be glued with approved adhesive in addition to fixing with necessary screws etc.
- 2.2 After preparing proper surface of skinning by sand preparing etc., the laminate or veneers shall be fixed on it with the help of approved adhesive.
- 2.3 Frame work for full height partition shall be rigidly fixed to the floor, walls and ceiling soffit. The partition height shall be measured up to bottom of false ceiling and framing members / ply going above will not be measured.
- 2.4 Any portion that are warped or found with other defects are to be replaced. The whole of the work is to be framed and finished in a workman- like manner in accordance with detailed drawings and the direction of Employer / Er In Charge of the work and whenever required, fitted with all necessary metals ties, straps, screws, adhesive etc. Joinery work generally to be finished with fine sand/glass paper.
- 2.5 All joins shall be standard mortise and tenon, dowel, or cross-halved. Screws, nails, etc. will be of standard iron or wire. Tenon should fit the mortises exactly.
- 2.6 Nailed or glued butt joints will not be permitted.
- 2.7 Whenever screw heads are on finished surfaces those will be sunk and the hole plugged with a wood plug of the same wood and grain to match the colour.
- 2.8 The contact surfaces of dowels, tendons, wedges etc., shall be glued with approved adhesives. Were glued, joinery and carpentry works is likely to come into contact with moisture, the glue should be water proof.

3. Timber


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- 3.1 All the wood, *Sal Steam, Beach wood, Leihau, Pine, CP teak*, as in to be used shall be properly seasoned, of natural growth and shall be free from worm holes, loose or dead knots or other defects, sawn square and shall not suffer from warping, spitting or other defects.
- 3.2 The moisture content shall not exceed 12%
- 3.3 All internal frameworks shall be treated with approved wood preservative, anti termite and with fire retardant treatment/paint.
- 3.4 All wood brought to site to be clean; it shall not have any preservatives or other coating / covering.
- 3.5 All rejected, decayed, bad quality wood shall be immediately removed from site.
- 3.6 All the dimensions mentioned for T.W. members are finished sizes.
All wood brought to site should be stacked, stored properly as per instructions.

4. Plywood

Plywood should be accordant as per the specification stipulated in bills of quantities.

Commercial Ply wood should generally confirm to IS :303, bonded with Phenol formaldehyde, BWR grade treated with wood preservative.

Particle boards should be phenol formaldehyde bonded and generally confirm to IS:3087 - 1965

5. Hardware and Metals

- 5.1 The hardware throughout shall be of approved manufacture or supplier well made and equal to in every respect to the sample to be deposited with Er In Charge of the work. The contractor may be required to produce and provide samples from many different sources before the Employer / Er In Charge of the work to take decisions and he should allow his rates for doing so.
- 5.2 All the screw/bolts with nuts to be used shall have oxidized finish (unless required otherwise) of approved shapes, size and quality.
- 5.3 Fittings shall be of brass oxidized heavy duty unless specified otherwise.
- 5.4 Samples of all hardware are required to be got approved in advance from Er In Charge of the works/Bank.
- 5.5 The agency should cover up and protect the brass surface by thick grease or other suitable material veneer as necessary and subsequently clean it away at the same time of handing over.


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- 5.6 All hardware shall be fitted with good workmanship without the surrounding edges being damaged.

Aluminum and stainless steel shall be of approved manufacture and suitable for its particular application. Generally the surface of aluminum shall have an anodized finish and both shall comply with samples approved by Employer / Er In Charge of the works.

6. Laminate

- 6.1 All laminate shall be specified in Bill of Quantity and of approved make.
- 6.2 The contractor shall get the sample showing the surface texture, pattern and color approved by Employer / Er In Charge of the work.
- 6.3 All edges, beading, etc shall also be finished in Lipping's

7. Fabrication in Metal

- 7.1 All brazing and welds are to be executed in a clean and smooth manner, rubber down and finished in flat and tidiest way, particularly where exposed.

8. Glass Works

- 8.1 All glass is to be of approved manufacture, complying with 1.5. 3548-1960, or as per approved quality and sample, to be of the qualities specified and free from bubbles, air holes, waviness and other defects.
- 8.2 In cutting glass, proper allowances shall be made for expansion. Each square or rectangle of glazing to be in one whole sheet.
- 8.3 Glass for mirror shall be silvering quality (5.Q.) conforming to 1.5.3458-1958 or as approved sample and quality.
- 8.4 On completion, all glass surfaces shall be cleaned inside and out. All cracked, scratched glass/ mirror shall be replaced.
- 8.5 Sun control film shall be non-reflective type, of approved make and shade. The fixing shall be without any defects such as air bubbles/ creases / adhesive marks, etc.

9. Paint and Polishes

- 9.1 All material required for the work shall be specified and approved manufacture, delivered to the site in the manufacture's containers with the seals, etc. unbroken and after use empty containers shall be stored till finally cleared by the Employer.


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9.2 All iron or steel/metal surfaces shall be thoroughly scraped and rubbed down with wire brushes and shall be entirely free from rust, mill scale etc. before applying the prime coat.

10. Civil Work

10.1 The Contractor shall use cement of approved make only.

10.2 Only first quality ceramic tiles / vitrified tiles of approved make shall be used. All tiles joints shall be filled up properly using cement slurry mixed with matching pigments.

10.3 Only best quality granite and marbles of the basic rate specified and of approved shade shall be used. (Basic rates wherever mentioned are ex-go down and excluding taxes). The granite/marble shall be from the same lot and without colour / shade variations or any other defects.

10.4 All edge chamfers / cutting of granite / marble shall be mirror polished and no extra shall be paid for the same. In the case of Urinal partitions / sink partitions, the granite slab used for partition should be polished on both sides.

11. Upholstery

This will be of first call standard workmanship with webbing, no sag spring, coiled springs, padding and filling as specified on drawing. Covering fabrics will be seen tufted and corded as shown on the drawing and as approved by the Employer / Er In Charge of the work.

Cushion Vents- Brass Cushion vents should be installed at the back or under side of seat cushions (especially those covered in leather vinyl plastics or very tightly woven fabrics) to allow air to escape easily and to prevent tearing.

Materials- Finished timber shall be of the type specified. Furnishing fabrics, colour, pattern, substance to be as specified and manufacture, or supplied by the company specified, no variations of this will be permitted unless with prior approval of the consultants. The sample of the upholstery should be got certified from the Bank! Er In Charge of the work, before placing orders.

12. Polish

12.1 French Polish

The basic material shall be shellac dissolved non methylated spirit

The timber must be well sanded and clean and the grain filler. Any staining must be done before applying the polish.

By pad of cotton with soft white linen or cotton fabric, apply evenly over the surface with a slow figure of eight motion until the timber is coated with a thin layer of polish. Allow the work to stand for at least 8 hours, and the fresh rubber with double thickness of cover material and charges it with methylated spirit.


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12.2 Wax Polish

Wax polish shall contain silicon's and driers. A good silicon wax is to be used not a creamy or sprays. Timber shall be sealed first with another finish such as Ronseal, before applying wax.

Apply a light coat of the sealer by brush or cloth direct to the unfilled timber, working it well in and finishing evenly with the grain. Allow to dry thoroughly then sand lightly with fine paper. Apply a heavy coat of wax by cloth or on flat surfaces with a stiff brush. Work it well into the timber and finish off by stroking with grain before leaving to harden. Leave for several hours before rubbing up with a soft brush. Finally buff the grain with a soft cloth.

12.3 Transparent coloured Polyurethane (Melamine)

This shall be applied where natural grain of the wood is required to show. Polyurethane gives tough surface which resist chipping, scratching and boiling water. Clean off all grease and wax with an abrasive and white spirit, this should not be applied in humid conditions. Apply the first coat, preferably of clear hard glaze with a cloth pad. Leave this to dry for at least six hours, and then apply further coats with a paintbrush. If you wait for longer than 24 hours between coats, rub down the previous coat with fine glass paper or a medium grade steel wool. Obtain a matt finish, if required, by giving a final coat of clear Ronseal Matt Coat.


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MODE OF MEASUREMENTS

The measurements will be made in terms of relevant IS codes and will be made in meters and will be as per I.S code. The method of measurements for each item is as given under:

1. DOORS, WINDOWS, ROLLING SHUTTERS AND GRILLS

Clear area over one face inclusive of frame shall be measured. Hold fasts and portions embedded in masonry or flooring shall not be measured.

2 PARTITIONS IN WOODWORK

The partition height shall be measured up to bottom of false ceiling finished level and framing members / ply going above shall not be measured.

3 DECORATIVE PANELING OVER WALL OR OVER PARTITIONS

The area of cladding shall be measured in square meter, or square feet. The gross area cladded will be measured. No deductions will be made for gaps upto one centimeter between the panels

4. CARPETS

The actual area covered by the carpet shall be measured. No extra shall be allowed for wastage.

5. PAVING AND TILE WORK

The work mentioned in this section (shall be measured in Sq.ft or Sq.m. and shall be priced per unit of Sq. mt. In all paving work, the slabs shall be touching the walls and go well under the plaster, but the measurements shall be the clear measurements of the rooms or areas when finished. No allowance shall be made for portions going under the plaster. The wall dado will also be measured as per the clear measurements of the visible area only.

6. ALUMINIUM SLIDING WINDOWS

The measurement of aluminum sliding windows shall be taken only after the frame along with the shutter is fixed in its final finished position in line level and plumb. Width and height shall be measured net between the out of the aluminum window frames.

7. SHUTTERS, STORAGE UNITS, BOXING FOR ROLLING SHUTTERS etc.

The area will be measured in Sq.m on the actual facing size. No allowance shall be made for portions not visible.


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8. UTILITY COUNTER, WALL MOUNTED WRITING LEDGE, PANTRY PLAT FORM, LUNCH PLATFORM SKIRTING etc

Will be measured in R.m on the actual length through the centre of the item if in curved profile.

9. FALSE CEILING

For false ceiling work, the measurement shall be for the actual area covered. The vertical faces will be measured as per the actual visible area. No deduction shall, be made for the cutouts, for light fittings, speakers, column up to 1.5 Sqm.

2. PAINTING

The rates include all scaffoldings, ladders, paints, cans, brushes and other appliances required for the efficient execution of the work. The rates also include conveyance, delivery, handling, unloading, storing, wastage, protective cover and cleaning stains from floors and walls, glass panes etc and also preparatory works such as knotting, priming stopping and rubbing down, burning off or stripping etc.

The rates for special conditions of works not mentioned in the tender will be finalized by Employer / Er In Charge of the work considering tile site conditions and nature of specialty required, which will be final and binding on the contractor.

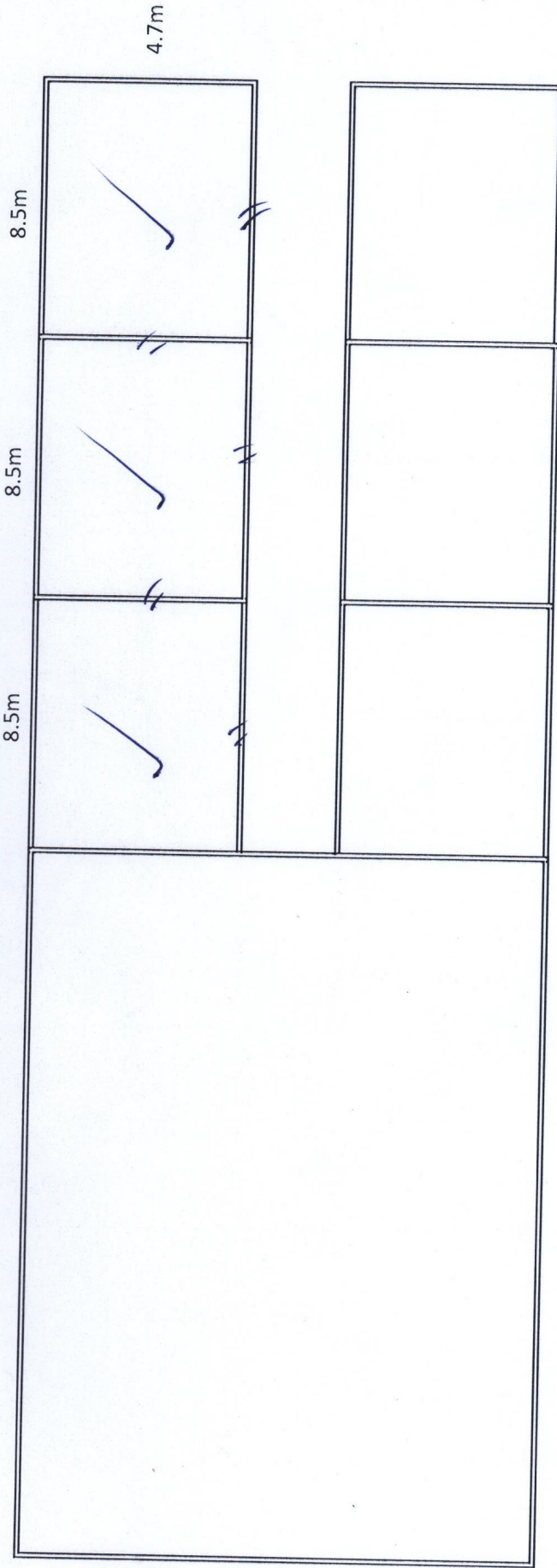
Measurements

No deduction will be made for openings not exceeding 0.5 Sq.m each and no addition will be made for painting to beadings, moldings, edges, jambs, soffits, sill etc. of such openings.

Corrugated sheet surfaces will be included with plain surfaces after increasing their areas by the following percentages :-

- (i) Corrugated sheets 14%
- (ii) Asbestos cement sheets corrugated 20%
- (iii) Asbestos cement sheets semi corrugated:- 10%


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Manipur



COMPUTER SCIENCE AND ENGINEERING DEPARTMENT (CSE)

M. Day Rambe
Junior Engineer (Civil) /c
N.I.T. Manipur

James
Executive Engineer
National Institute of Technology
Manipur